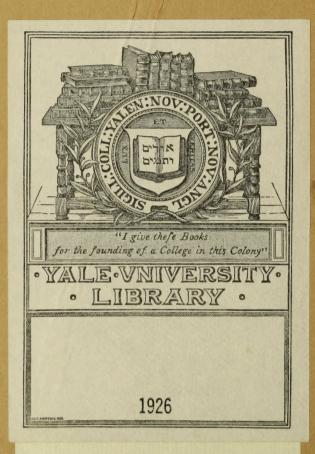


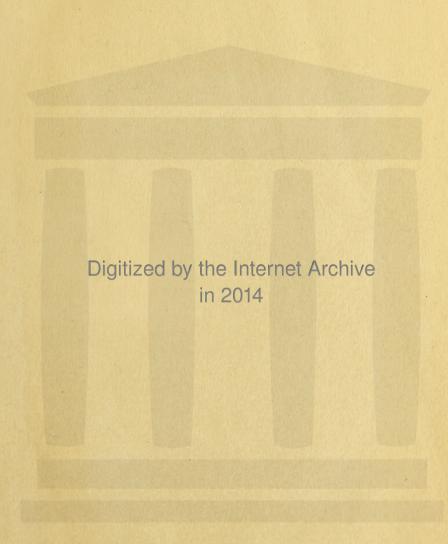
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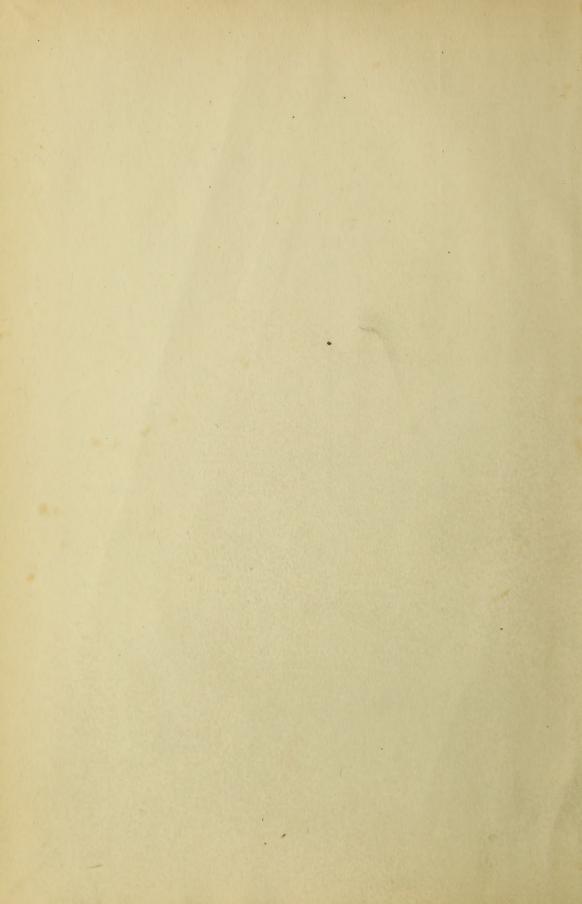


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INDEX TO VOLUME LIX

PAGE	PAGE
Abdominal Pain, Acute 59	Chronic Cystitis—Report of Cases 145
American National Red Cross in First Aid	Colon Resection and Its Indications-Re-
and Accident Prevention, The 131	port of Cases 235
An Answer to the Query: Shall the City	Correspondence—
of Balitmore Surrender Quarantine to	American First Aid Conference 45
the Federal Government? 165	Education and Health 287
Articular Rheumatism, The Treatment of	Effect of Variations of the Gastric Secre-
Acute	tion Upon the Composition of the
Book Reviews21, 71, 97, 149, 178, 200,	Saliva, The 176
222, 256, 279	Editorials24, 50, 76, 102, 128 180,
Caesarean Section—Indications and Tech-	203, 231, 257, 283, 310
nique as Performed by the Author 79	Epilepsy, The Treatment of 293
Cancer of the Stomach, On the Early Rec-	Esophagus, Folds and Webs at the Upper
ognition of	End of the 189

MARYLAND MEDICAL JOURNAL

PAGE	PAGE
First Aid in the Navy 8	Phases of Life, The Three 37
First Aid Instruction to Police Force of	Rectum, Diseases of the 53
Baltimore	Removing Flat Foreign Bodies from the
Fractures of the Lower End of the Tibia	Trachea of the Young Child, A Simple
and Fibula	Method
Goiter, Surgical Treatment of 31	Renal and Ureteral Calculi, Remarks on
Heart, Incised Wound of, Suture and	the Diagnosis of 183
Recovery 42	Report of Board of Medical Examiners of
Indicanuria—A Study of One Hundred	Maryland
Consecutive Cases	Sarcoma of the Scapula, Report of Two
Infant Welfare Work-Its Necessity, Its	Cases
Reward	Smith, Nathan, Nathan R. Smith and Alan
Interscapulo-Thoracic Amputation of the	P. Smith—A Medical Family 56
Upper Extremity for Sarcoma of the	Soluble Extract of Corpus Lutem 198
Shoulder, A Case of	Stomach, The Modern Method of Treat-
Laryngologist, Some Reflections, Reminis-	ment of Diseases of the 261
cences and Confessions of a 105	Surgeon's Education in Cancer-Conclu-
Nasal Accessory Sinuses, A Report of	sions After Nearly Thirty Years of
Some Unusual Cases of Disease of the. 297	Clinical Observation
National Board of Medical Examiners,	Treatment of Extra Uterine Pregnancy,
The 252	The 209
Nursing, The Evolution of 157	Urethratome, An Improved 92
Personal Experiences at the Red Cross	Venereal Complications, Multiple, Report
Hospitals at Pau, France 14	of Case

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A SURGEON'S EDUCATION IN CANCER— CONCLUSIONS AFTER NEARLY THIRTY YEARS OF CLINICAL OBSERVATION.*

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So MUCH has been said and done and such a literature has arisen during this great anticancer year that it is difficult to find a point of vantage where you may view the battle from a novel aspect.

The lessons gleaned and the conclusions reached from individual experience must carry a certain interest, however, and I trust you will pardon me if in this little address I try to place before you my own attitude in regard to cancer, after nearly thirty years of active surgical work.

And first of all, let me say that when I compare the present state of cancer surgery with that of thirty years ago I find one elemental difference. It is the presence of justified hope where before there was a feeling of helplessness.

Operative recoveries there were in those days, but always, even in the milder cases, an actual cure or the total disappearance of symptoms for a number of years was a surgical curiosity of unusual interest. Now, however, there is a distinct expectation of permanent recovery in the majority of the early operable cases.

We shall briefly discuss a few of the pathological conditions and the organs invaded and then conclude with general considerations.

Let us begin with cancer of the breast. In 1886 success was largely a matter of luck. In scirrhous carcinoma, slowly growing and almost noncellular, attacked by the so-called "radical" operation of those days, with exploration of the armpit and the removal of palpable axillary nodes, we might reasonably have expected a long respite, if not an actual cure. Recurrences—or relapses, as local returns of the disease should properly be called—were far commoner than they are today, and in the softer or more malignant forms of the neoplasm there was seldom relief for more than a few months. Patients came, as a rule, with advanced cancer and often with widely distributed metastasis.

^{*}Read at the meeting of the Baltimore City Medical Society, October 29, 1915. for the American Society for the Control of Cancer.



In contrast, today my patients with mammary tumors usually come in the earlier stages, often with no palpable axillary nodes. The public has already reaped some of the advantages of educa-

tion from the cancer campaign.

It appears to me that with the modern early operation the more malignant forms of mammary carcinoma present a better chance for actual extirpation than did the scirrhous of years ago. This happy change began when Halstead and Meyer evolved the epochmarking method of complete extirpation through removal of the pectoral muscles. Before this time the nodes beneath the lesser pectoral were rarely, if ever, systematically removed so that many of the patients might have done almost as well without operation. We now also have the transverse incision of Stewart, which leaves the shoulder unscarred—a most desirable improvement.

THE STOMACH.

During my term of house staff service in the hospital, 1886-88, I did not see a single extirpation of gastric cancer. The procedure was a rare one, and seldom undertaken unless a palpable tumor clinched the diagnosis. Now we know that a diagnosis so confirmed is in most instances combined with a fatal prognosis. As well wait for jaundice in gallstone disease, or fecal vomiting in intestinal obstruction. In a subject more than forty years old we should operate for persistent "indigestion" and so eradicate many cases of early gastric cancer. We have in the X-ray an indispensable aid in disease of the abdominal hollow viscera while still in the hopeful stage.

THORACIC ESOPHAGUS.

Only one case of the *cure* of cancer in this location has ever been reported—the classic one of Torek. Yet in a disease so distressing and so absolutely hopeless without surgery we are justified in continuing our efforts, even though only an occasional recovery brightens the gloom. I have every confidence that success is a matter of time and the advance of technical methods.

PANCREAS.

I have never seen recovery in a case of carcinoma of this organ. Cholecystostomy or cholecystenterostomy may relieve the jaundice—but beware of basing a fatal prognosis on the operative discovery of a stony hard pancreatic tumor. You may be dealing with chronic pancreatitis, and the doomed man may some day return in blooming health to mock you.

PROSTATE.

When the microscope reveals unsuspected cancer in the enucleated senile prostate permanent cure or long relief of symptoms may still follow; but this is never the case with the tumors which have extended beyond the capsule.

THE INTESTINE.

Thirty or more years ago intestinal surgery was rarely seen except in cases of gangrene or injury. The work of Senn and Mur-

phy and the other pioneers was yet to come. Now resection of the colon for localized carcinoma is common. It is not regarded as extra hazardous, and the proportion of operative cures is correspondingly great. A man whose transverse colon I resected twenty years ago for carcinoma died recently of carcinoma of the sigmoid. Either it was a coincidence or he exemplified a *tendency to cancer*.

HYPERNEPHROMA.

In the early nineties I began to see these cases. Most common in the kidney and due probably to degenerated adrenal tissue nephrectomy was our choice as soon as the diagnosis was made, the only important contraindication being the presence of secondary or metastatic tumors. But it is now recognized that for years there may be a solitary metastasis, and that if operable it may be removed at the time of the nephrectomy with a good chance for a long period of relief. I have even concluded that if no *inoperable* secondary tumor exists multiple metastases when easily removable should not forbid nephrectomy, together with the simultaneous extirpation of the metastases.

TUMORS OF LOCAL MALIGNANCY—CAROTID BODY ENDOTHELIOMA.

The writer has observed a number of these interesting cases and has operated in three in his own practice. While this form of neoplasm is rare, yet it is worthy of some consideration. It originates in the structure found at the bifurcation of the carotid artery. and because of its painlessness and slow growth it is rarely approached until it has implicated important structures, so that in even the comparatively early cases extirpation is possible only by resection of the carotid—external and internal—the deep jugular vein and even the vagus. Relapse is the rule, in spite of apparently wide excision, but metastasis is so rare that only one case has been reported. (Callison and MacKenty, Annals Surgery, No. 59.) Cachexia due to absorption of toxins is a very late symptom even in large tumors. The whole picture suggests a resemblance to the so-called nonmalignant hypernephromata, which probably never come to operation until something changes their character to one of malignancy. Can it be possible that these clinically "nonmalignant" tumors which are anatomically malignant owe their innocence to the absence of something which for want of a better name we may call the Germ of Malignancy? And that their character changes when infection by such a germ occurs?

COLEY'S TOXINES IN SARCOMA.

Since its inception I have watched with interest the development of this remedy, and I have consistently employed it. Just how it operates is not known, but after years of incredulity the surgeons of this country appear inclined to favor it. I have seen three cases in which after the incomplete removal of sarcomata the remainder of the growth has disappeared under the influence of the toxines. In all the cases the diagnosis had been confirmed by histology. One patient is well after more than ten years, another after five

years, the third two years. I think I was the first to suggest its employment after apparently radical extirpations of malignant growths, and I still use it in these cases. When the patients gain in weight during the treatment the prognosis is good. In the inoperable cases it should be used until we have something better. The cure of one otherwise hopeless case in a hundred justifies the remedy, and I am sure the ratio is higher than that.

X-RAY AND RADIUM.

Since this is a recital of personal experience, I can report almost nothing upon the subject of radiotherapeutics in cancer. In superficial epithelioma of parts where a scar would be most troublesome, say the cyclid, this form of therapy is applicable. I have seen good results with almost no cicatrization. Perhaps the day will come when I shall feel confidence in a wider use of these wonderful forces. Kelly's work gives promise of this.

With the present tendency to ascribe all advance in medical science to the laboratory worker, it is interesting to note that the improvement in the treatment of cancer is nearly all due to progress in clinical surgery—the good judgment derived from experience combined with improved technique. We dare now to take risk which would formerly have been regarded as unwarrantable, e. g., the extirpation of all cancer-bearing tissue in the case of uterine carcinoma may have occasionally hastened the end, but it has also apparently *cured* what formerly would scarcely have been relieved.

And this brings us to the discussion of the proper treatment in cases which border upon inoperability. A volume might easily be filled with argument and with illustrative instances.

Naturally, the individual surgeon must judge for himself what to do in a given case, yet certain broad general rules have formulated themselves in my mind.

The objects to be attained by the surgery of cancer are:

Cure.

2. The prolongation of life.

3. Relief of pain.

4. Relief of conditions offensive to the patient and those about him.

1. Cure—This is to be hoped for in the early cases and in a few of the later ones. Even with the result of deformity or great physical disability it is astonishing how a resourceful person can make the most of conditions which at first sight appear intolerable.

An operation which has cure as its object may be as extensive and dangerous as the total extirpation of the growth demands; but palliation alone should be accompanied by little risk. Never is good surgical judgment more indispensable than in making this decision. The brilliant pyrotechnic operation which results after arduous effort in merely getting the patient off the table alive is an abomination in surgery. In a carcinoma of the sigmoid with infected

pelvic nodes, better an enterocolostomy than the unsuccessful attempt, almost fatal in itself, to eradicate the disease.

- 2. The mere prolongation of life may be of such importance to the family of the patient that the remote possibility of a cure by an extremely hazardous operation would be considered undesirable by an unselfish patient, and we are not justified in running counter to his wish.
- 3. Relief of Pain—An operation which promises analgesia should not be denied except in what may be called the terminal stages of the disease, when opiates will not lose their power before the end. Nerve resections, division of the sensation tracts in the cord, amputations—all are useful procedures rendering more tolerable the last distressing days.

Permanent colostomy will prolong for months or years in comparative comfort the life of one suffering from ineradicable rectal carcinoma. During this time a lifework may be completed or a

problem may be solved.

4. Relief of offensive conditions may be secured by operation when a cure may not be hoped for. In ulcerating cancer of the breast the removal of the discharging part with immediate skin grafting has been followed by a period of comparative comfort for the patient and those about her. Hysterectomy in cases too far advanced for radical operation will still be justified by eliminating foul discharges.

CLINICAL AND LABORATORY DIAGNOSIS AT TIME OF OPERATION.

The status of microscopy as a means of diagnosis during the operation has greatly changed in the past quarter century, and it appears likely that further developments along this line and also in chemical diagnosis may add much to the knowledge which immediately influences the surgeon's decision. At present there is a tendency away from the idea of "removing a specimen" some days before operation. It must be admitted that unless this can be done with the cautery knife there is grave danger of spreading the disease by what may be called traumatic massage into the neighboring lymph spaces. In indurated tissues, when the lumina of the veins are held wide by their rigid walls, actual malignant embolism may well be feared.

There is a broad general principle that any tumor had better be removed, the type of the complete operation depending upon the character of the neoplasm as determined by gross or microscopical inspection immediately after its excision. While this examination is going on the wound may be sutured so that no time is actually lost in case the report should be favorable, and if the verdict is unfavorable the radical operation can be proceeded with as if nothing had been done. Narcosis is advisable because of the bad moral effect upon the patient when he must be told of the suspicion of malignancy and the instant necessity for further surgery.

In the mammary and prostatic tumors the method of removing

a specimen for previous—and not immediate—examination is particularly unwise, because of the frequent existence of easily overlooked cancer in a small area of an otherwise innocent tumor.

It has been said that an obvious clinical diagnosis is alone sufficient to warrant a radical operation, and this principle may be subscribed to when the contemplated operation is not too hazardous. I recollect the case of a woman in her late fifties who had a painless, indurated, nodular left breast, with shrinking of the mammary tissue and with purplish discoloration of the fixed integument. There were hard lymph nodes in the armpit. The case was plainly one of rapidly growing carcinoma, and a concurring diagnosis was made by another surgeon. After the radical amputation the specimen was incised and chronic suppurative mastitis was disclosed. The woman made a good recovery, but she had lost her left pectoral muscles and had been subjected to an operation of greater magnitude than necessary. This was before the days of accurate frozen section work, but had only the mamma been removed and even grossly sectioned the radical operation would have been avoided.

Another patient, in which as house surgeon I assisted the late Dr. P. F. Mundé, was operated upon for what was diagnosed as an ovarian cyst of large size. On entering the abdomen the "cyst" came away as straw-colored ascitic fluid, but the entire pelvis was filled with a whitish cauliflower-like mass, with secondary growths studding the viscera everywhere. The main tumor appeared to arise in one of the ovaries. We were so sure of malignancy and of the utter hopelessness of any attempt at cure or alleviation that the abdomen was closed without even the removal of a specimen. Prognosis fatal. But the woman recovered and remained well, the ascites not recurring.

To spare the patient a hopeless and dangerous operation I have found useful the excision of a distant node or tumor. In suspected gastric cancer I have excised by a minor operation a lymph node from the supraclavicular region, a positive diagnosis of malignancy resulting. The patient was spared an abdominal section. This gland, called Virchow's, is commonest on the left side, and I have often wondered if the presence of the principal lacteal duct in this region might not in some way have determined the site of

the metastasis.

And now, after these many years, with their inevitable lessons and with the wonderful improvements in surgical possibilities, we are still confronted with two tragic obstacles. The first is the layman's fear of operation in cancer, and the second the inexcusable attitude of procrastination which is still maintained by so many in the medical arm of our profession.

Lumps in the breast are, alas, still treated by placebos until the

diagnosis hurls itself upon the physician and patient alike.

Cancer of the rectum is treated symptomatically, often as a case

of "piles," without even a digital examination, until obstruction of the bowels presents its classic misery.

Gastric carcinoma is coddled until stenosis or hemorrhage appear.

Cancer of the tongue in its early and easily curable state is irritated with caustic until the lymph nodes become infected and the hope of cure is gone.

The woman of 45 with cancer of the uterus is still vainly soothed and "observed," often without vaginal examination, in the hope that the irregular show of blood may turn out to be a climacteric phenomenon.

And so I might easily catalogue all the regions which are commonly affected by malignant neoplasms.

In a recent study of the writer's cases it was shown that the average time which elapsed between the first objective signs of cancer and the visit to the surgeon was a year. Nearly every patient had consulted a physician soon after the discovery of the first suspicious sign, and in nearly every instance more or less delay was due directly to the disinclination of the doctor to tell the disagreeable truth to some one in the family. It is often best not to alarm the patient himself, and I have heard our venerable Abraham Jacobi say that especially the man who says he wishes nothing hidden from him is the one who secretly least desires to know that he has a fatal malady. But the disease must be properly treated, and some one has to be told.

In every case of cancer there must be some day—perhaps some hour or some moment—when the change occurs from the possibility of cure to the certainty of a fatal ending. There may be no signal by which nature announces this change, and it may be inappreciable to human observation. Therefore, we should regard every case of cancer as urgent, and operation should be delayed only for good and sufficient reasons. Certain forms of the so-called precancerous lesions before the suspicion of actual malignancy may be treated less radically until it becomes evident that a cure cannot be thus effected. Then they should be considered cancer, even if occasionally a benign neoplasm is extirpated.

Some years ago one of my most valued patients, a man 54 years old, consulted me about a small indurated ulcer of the rectum. A few weeks before he had been in the hands of an irregular practitioner to be relieved of hemorrhoids "without operation." The ulcer looked suspicious to me, and I suggested that a specimen be removed for immediate microscopic diagnosis. "Why, doctor, you don't mean to say you suspect anything serious, do you?" I was asked, and my reply was, "I don't wish to guess, I want to know! The ulcer is most probably a simple inflammation." And so it proved to be. But the patient's wife attacked me on account of what she termed my "brutality," and I lost a patient and a good friend. But what I did was the only right thing to do. I could

not act otherwise today, and the only lesson I learned was that injustice is something that cannot be avoided.

The work of our profession occupies a position between a pure science and the most intimate personal service. We have but one goal—the well-being of humanity—and the science is one of our potent means toward its attainment. But science alone will not reach those who need it most. With it must go a humanity which carries to the sufferer the conviction of cordial sympathy. Though in spite of our honesty and tact some will misunderstand us, yet others will remain loyal through failure and even in the face of death itself.

The highest reward for the effort of any man is the sincere appreciation of his fellows.

"FIRST AID IN THE NAVY."*

By R. C. Holcomb, Surgeon, U. S. Navy,
Assistant to Bureau of Medicine and Surgery, Navy Department.

I HAVE often found that in using the term "First Aid" there was some misconception or lack of understanding in what was actually meant by the user thereof. The term "First Aid" is defined in the New Standard Dictionary as "the first treatment given to a person injured, as by accident, while awaiting regular medical attendance." This definition is not entirely satisfactory. The inference is quite clear that this aid is rendered by persons not of the medical profession. But the term "First Aid" has been applied, and perhaps rightly applied, to the emergency service rendered by a physician. For instance, the assistance rendered by the ambulance surgeon responding to an emergency call is often only a temporary expedient and is of a nature of first aid, and is only preparatory to transporting the person to a proper place and to a proper person who may administer the necessary emergency treatment. Under most conditions he ought not be expected to render more. At our navy-yards, where we employ a large force of civilian workmen, in numbers at some yards as great as four or five thousand, one of our surgeons is constantly on duty and is prepared to render what is known in the navy-yard, and by our regulations, as "First Aid." While the amount of assistance that he may give in some cases could be properly called emergency surgery, still, in the main, the idea is only to give that emergency treatment which is necessary in the interval between the time that the injury is incurred and such time as the man may properly be turned over to his family or some other responsible disposition made. And so we may see that first aid may not be limited to the assistance which may be given by unprofessional persons, but it may be rendered by the trained physician or the trained hospital corps man. While the trained physician may be prepared to offer assistance in the shape of

^{*}Address delivered at the meeting of the Baltimore City Medical Society, November 11, 1915.

emergency service, it may be expedient and proper for him only to administer first aid. It often happens that more than this is neither required nor desired.

In my discussion I purpose to make a distinction between emergency surgery administered by the trained physician and first aid administered only as a temporary expedient by unprofessional or

untrained persons.

Before speaking of the strictly naval features of first aid I must dispose of our responsibility in connection with the administration of first aid to the multitude of shops and manufacturing plants, a necessary adjunct of all of our large navy-yards. As I said before, the employes at some of our large yards number several thousand. many of them employed in occupations about machinery and subject to severe injury. There are one or more medical officers constantly on duty in these large yards, and they have an elaborate equipment of supplies, they have their operating-rooms with appurtenances, and are able to take care promptly of any emergency that may arise. A large yard will average several thousand injuries per year, so that daily there is a considerable amount of emergency work to be done, most of it of a minor character. The yard surgeon is prepared to see the case so quickly that the case can often be treated along aseptic lines—the employees' liability act prompting men to report their injuries quickly—and it is greatly to the Government's interest that this work should be done by the medical officer. You all know how frequently a trivial injury which should cause no disability becomes infected through neglect, and the man's services are temporarily lost by the Government because of an infection that should not have occurred. I feel that I can dismiss this subject of the treatment of civilian employes by saving that I do not believe that there is any need for a first-aid packet here, or any methods of standardization, because this work is directly under the supervision of a professional man who is, or ought to be, competent to efficiently handle the situation.

In wartime, and particularly in service with an army, the situation is entirely different. The army is a motile organization, and may be more or less constantly on the move. The medical organization must also be motile, and the advantages which the naval surgeon possesses for the routine handling of his cases, with his abundance of surgical supplies, with his instruments and operating facilities, do not exist. The delay in getting the patient to the surgeon, the environment inviting, even soliciting, infection, makes the opportunity for practicing aseptic surgery rare, unless the wound is from a small arm, and we are obliged by necessity to practice antiseptic surgery even though aseptic surgery is the accepted principle of our civilian training. The reports of the character of the wounds inflicted in the present trench warfare would indicate that infection is the rule, and that a degree of sepsis is a common element which must be taken into consideration in the

treatment of all wounds.

The war will undoubtedly result in considerable advance in the field of antiseptic surgery. The new antiseptic solution devised by Dr. Dakin, who has been working with Dr. Alexis Carrel's Hospital, holds forth considerable promise. It is the result of a study of 130 different chemical antiseptic combinations, and, besides being a powerful antiseptic, is non-irritating to the tissues. It consists of an aqueous solution of 0.5 (five-tenths per cent.) concentration of sodium hypochloride, neutral to litmus and faintly acid to phenolphthalein. Within the next two or three weeks the Bureau of Medicine and Surgery will publish a volume by one of our medical observers describing the medico-surgical aspects of the European war.

The surgery of trench warfare is of much interest to us as naval surgeons. Today more than one-tenth of our medical corps is in field service. Some are with marines in Haiti, some with the legation guards in Nicaragua and China, or serving with our forces beyond the seas. Whenever our flag has left our coast, and whenever occasion comes that we should take our flag and arms to meet any foreign menace, you will find our marines in the van, and with them through cold and heat, through fire and water, will go the naval medical officer. I will leave further comment on the subject of land warfare to my friend of the army, and try to briefly outline to you how we meet the problem of "First Aid" for the man

who goes out onto the sea in ships.

As long as I can remember my service experience I have been familiar with a packet known in the navy as a first-aid packet. This packet has been revised on occasion, and the last revision was approved by a joint army and navy board of service medical officers. I was naturally surprised when a first-aid conference was called to meet in Washington last August, and particularly as the circular-letter calling this conference contained a closing paragraph stating: "First-aid packages and measures of fixation, splints and transportation not only vary in different departments of the army and navy, but also differ in different armies of the various nations of the world." This first-aid conference, so I gathered from the literature that was sent me, would undertake the revision of the military first-aid packet, placing it on a more efficient basis, besides providing for a uniform accident surgery in civil life. As the conference proceeded I realized that there were other persons to whom first aid was as much of a problem as it was to the military surgeon, though from a somewhat different angle. I began to realize that a form of spastic legislation was beginning to produce new trials for the railroads, and a time seemed to be coming when, as far as first-aid requirements were concerned, it would be like the old days when as the train approached a new State line the engineer had to get out and change his headlights and make other sundry changes in his machinery in order to meet the legal requirements necessary for further progress.

While leaving the first meeting of the conference I had a very interesting conversation in the elevator with one of the members of the conference who was pleased to criticize our first-aid packet. He told me that it was too expensive to use on his railroad, inasmuch as it cost about 24 cents; that he had considered using it, but that he had found that he could make a packet himself for emergencies such as cuts and burns which would cost a great deal less and be just as good, perhaps a little better. He was right, but it seemed to me that the mistake that this surgeon made was that he did not realize that any scheme for first aid must be occupational. For instance, the first-aid packet which is carried by the soldier, and which is issued by the navy to landing parties, was never intended for a cut, it was never intended for a burn, it was never intended for a confinement case; but the emergency which it was intended to meet was the wound of a rifle bullet, an injury most likely to occur when engaged in their legitimate occupation. In other words, it provides first aid for gunshot wounds. The packet was small because it had to be. It was enclosed in an impervious container so that the man could carry it through a march in all kinds of weather and still preserve its sterility. This added to its cost. It consisted of two compresses, each sewed to a bandage so that they might not drop off in handling nor the compress itself have to be handled, and the reason why it consisted of two compresses was because a bullet wound has usually a wound of entrance and a wound of exit, and a sterile compress is therefore needed to cover both of these wounds. The letter that called the conference intimated that the packet was not a uniform issue for both of our services. This was in error, as both packets are exactly the same from the length and width of the bandage to the number of threads per linear inch in the compresses. Several European armies issue exactly the same first-aid packet. But the first-aid packet for small arms wounds was not the only packet approved by this joint army and navy board. They also considered a shell-wound packet and a packet for use in burns. They likewise considered the subject of transportation from the standpoint of the field and ship litter to the hospital ship or medical transport. At times we find it necessary in the navy to make our first-aid packet very complex. The packet, for instance, which goes with each boat in "abandon ship" contains, I might say, a little of everything. The first-aid packet for the use of aviators is a combined packet for treating fractures, burns and wounds such as our studies have shown are apt to occur to aviators. First aid for men engaged in deep diving goes to the extent of a recompression chamber. The injuries peculiar to occupation are in detail more protean than old Proteus himself, and so you see we have to modify our packet to meet the emergency or the occupation. Let us consider the sailor for a moment. In time of war he is on a battleship. He has between him and the enemy very heavy plates of armor of from nine to eleven inches in thickness, and under these circumstances we could

hardly expect him to be wounded by a rifle bullet and have need for the first-aid packet for gunshot wounds. The menace to him is not one of rifles, but is one of 13-inch shells. Those of you who have seen photographs of the horrible wounds suffered by these ships—the twisted stanchions, the torn steel plates, a condition of massive havoc gone to seed—might conclude from these views that the kind of a first-aid packet needed in this situation should include a broom, a shovel and a laundry bag for receiving the remains. Here we must not consider the fight as between man and man, but between thick-hided monsters, each single shot capable of instantly con-

verting a ship's compartment into a slaughter house.

The history of modern naval fights would indicate that the winner receives but little punishment as compared to the vanguished. Since the battle of Lissa, in the Adriatic, between the Italians and the Austrians, a review of naval warfare would indicate that the vanguished is practically annihilated. This was true in the war between China and Japan; it was true in our fights at Manila Bay and Santiago; it was true in the Russo-Japanese War, and it was true in the two naval engagements in the present war, not to mention the sea duels such as the fight between the Emden and the Sydney. As we read of the overwhelming punishment suffered by the vanguished we realize that first aid for him would consist of some piece of wreckage with a greater buovancy than a steel beam. The wounds of the old days from flying splinters of wood and wreckage, the wounds by cutlasses inflicted by boarders, the stabs by pike in an effort to repel boarders, are now things of the past. Today the sailor faces the chance of being wounded by a shell fragment, or many fragments; of being slaughtered in a shower of flying steel debris; of being scalded by bursting steam pipes, or of being burned to death by a blast of explosion. These are mainly the chances that he takes with the smaller caliber of shells. ordnance is changing, and as ordnance changes so will the character of the wounds. Now, instead of the possibility of a perforating wound by a small missile such as the rifle bullet, a shell wound opens up the possibility of any kind of a fracture known, or yet unknown, and a variety of lacerated wounds that no one package has yet been devised to meet or probably will be devised. If our ships should survive the holocaust of a modern naval fight, some of the medical staff and assistants will also survive, and I believe that the situation, so far as dressings are concerned, will be best met by using the elements of surgical dressings and aid as represented by an assortment of bandages and an abundance of sterile dressing material on hand and accessible in the designated battle dressing stations. I am not persuaded, nor do I believe that the bulk of naval surgeons are persuaded, that we can meet the injuries that are apt to occur on board a battleship during an engagement by a uniform first-aid packet. The ships that turn their gray hulls and steam forth over the horizon to meet the enemy will come back the victors or they will not come back at all.

Those of the vanquished who are not killed outright by the enemy's fire will probably meet their death by drowning, for this has been

the case in all recent large naval engagements.

I have tried in these very brief comments which I have given you to impress upon you some conception of naval battle casualties, and you will say to me, "If things are so, how are you prepared to meet this emergency?" The question is proper, and I will try to outline for you very briefly what we are doing so far as first aid per se is concerned. I will omit any discussion of the medical officers, of their training and of their studies; I will omit describing to you the course of training which is given to some 1600 hospital corpsmen at our two hospital corps schools, and who are trained and skilled in application of first-aid measures, and try to tell you what plans are made for handling wounds until the man can be transferred to the battle dressing station. First of all we must consider instruction. Our plan comprehends a uniform instruction in first aid for every man and officer in the navy. This course of instruction is uniform and consists of five periods. The instruction is given by the division officer under the general superintendence of the medical officer, and is repeated over and over again as a matter of routine. It proceeds with the same regularity as Sunday, Monday, Tuesday, Wednesday, etc. The first period consists of demonstrating and applying the first-aid packet and the shell-wound dressing. This is gone over man by man so that he will be familiar with the packet and know how to apply it readily without fumbling or handling. The second period takes up the subject of broken bones and extemporaneous methods of immobilization. The third period deals with wounds in general and aims to discuss not only what may be done, but in certain wounds, as wounds of the chest and abdomen, some of the things that should not be done. The fourth period deals with the control of hemorrhage and the fifth period with the resuscitation of the apparently drowned. This instruction comprises about two and a half pages of printed matter, and it is about as much as we find the average man will profitably absorb. The men are taught that prior to battle they should bathe and put on clean underclothing, and they are also taught that a free digestive tract is a better condition for going into battle than one that is engorged with food. After many years of experience in attempting to teach first aid to the enlisted man, I have found that his interest alone will not carry him very far into the subject, and I do not believe, when I consider the fact that there is always a medical officer or a hospital corpsman close at hand and more or less readily available, that he needs the elaborate instruction which might be necessary if he were more completely isolated. I am not persuaded that he needs to be instructed in emergency surgery, but I do believe that as transportation to the dressing station is largely in his hands he should be most carefully and fully instructed in this matter. This kind of instruction is being uniformly given to certain selected groups of

personnel who would be available for this purpose in time of battle, and as our instructions in this matter are contained in a small volume, I will spare you the details of them this evening. In the Bluejacket's Manual, which every sailorman has in his possession, there are sections on personal hygiene and first aid which form a part of the multitude of other subjects in which he receives instruc-

tion during his career in the navy.

Things are continually changing. Each large war brings out a new menace. How great has been the change in the surgical aspect of wounds during this great European war! No longer does the soldier consider his gravest danger the flying rifle bullet. trench warfare on the western frontier of Germany has settled down to a duel of artillery, and the wounds that a first-aid packet might have met are now made by fragments of shell and flying debris, carrying with them into the tissues soiled and dirty clothing and all the elements for sepsis. And the indications are strong that the medical officer must be prepared to cope with an army which is no respecter of persons and whose strategy he must study in all its phases. This army is the mighty forces of the microorganisms of sepsis. With his knowledge of their strategy he must also provide himself with effective ordnance in the shape of efficient non-irritating antiseptics, available for prompt application, and strive to develop the protective vaccines and the antitoxic serums, the surest protection against septic invasion. naval and the military surgeon has not been behind in appreciating the value of prophylactic measures against various infections, and I know that many of you will agree with me when I say that in the march of sanitary science he might be detected somewhere in the van. But when it comes to devising a universal first-aid packet to be used in civil activities, I would want to advance my frank and humble opinion that the naval medical officer is no more fitted to undertake that task offhand and without study and experience than is his professional brother, the civilian practitioner, prepared to solve the problems of the naval medical officer.

PERSONAL EXPERIENCES AT THE RED CROSS HOSPITALS AT PAU, FRANCE.

By J. A. C. Colston, M.D.

At the time of the arrival in Bordeaux of the detachment of the American Red Cross detailed for duty in France, conditions were quite unsettled, to say the least, and the general uncertainty as to the fate of Paris was reflected to the most distant parts of the republic. Our party landed at a small post on the river below Bordeaux during the first week of October, and we arrived at the city to find it the seat of the Government, which had been hastily transferred there only a few weeks before when Paris had been in such

imminent danger of capture. Naturally, the Government services were working under a great handicap and the needs of all departments were secondary to the one great pressing necessity at this time—the transport of the troops and the tremendous problem of the supply of the armies in the field. For this reason the many trains of the Service Sanitaire—the French Army Medical Corps—were delayed on all occasions, and, although the general policy of those in charge was the removal of the wounded as rapidly as possible, and as far as possible from the zone of the armies, it was usually four or five days, or even longer, before these trains arrived in the south of France.

However, conditions were readjusted gradually, and when the belligerent armies took up the positions which they still occupy, approximately towards the middle of October, a notable increase

in the efficiency of the Service Sanitaire became evident.

Our party, consisting of six surgeons and twenty-four nurses. was assigned to duty in a town of about 30,000 population, about four hours' distant from Bordeaux. On arriving at our destination, a large casino was turned over to us for transformation into a hospital and we found the town in its various temporary hospitals caring for about 2000 wounded. As was the case throughout France, a great many public buildings had been requisitioned by the Government and the task of supplying them with hospital essentials was placed upon the community. Among the largest buildings thus taken in Pau were the Lyceé, a boys' school, the Ecole Normale, the old monastery of the Sacré Coeur, the convent of the Immaculeé Conception, in addition to several private houses which were used for the more slightly wounded and convalescent cases. These various buildings were equipped as rapidly as possible with the bare essentials of a hospital, beds were installed, and on our arrival 2000 patients were receiving good treatment under the care of doctors who, although taken from different specialties or from general practice, had nevertheless had some experience with which to meet the many problems that the situation offered on account of their obligatory military service. The nursing was confined to French women volunteers, practically none of whom had had any experience, but classes were soon started for their instruction under the best men of the town, in which they were grounded in the most essential subjects. All surgical work was at first done by the doctors in charge of the hospital, but the heads of the Service Sanitaire soon adopted the excellent policy of bringing back the more experienced surgeons from wherever the chances of a hasty mobilization had placed them to the more important surgical work for which there was a crying necessity in the base hospitals of the larger towns. Thus at Pau practically all the surgery, with the exception of that done at our hospital, was under the care of two men who had been doing general surgery in civil life.

The number of nerve lesions and the necessity of electrical treatment in these cases soon led to the creation of a central hospital

fully equipped with the electrical apparatus which the temporary hospitals did not as a rule possess, and here were sent as far as was practicable all the patients of this type in the French armies. The staff of this establishment was chosen for the most part from among the neurologists of note in France, and its chief was Prof. Testut of Lyons, the foremost French anatomist. With the large and varied material which he has at his disposal, Professor Testut is making a study of many different and rare types of nerve lesions, and I saw in a short visit several medical students engaged in making drawings of the most interesting cases and mapping out the zones of anesthesia and paralysis. Professor Testut was most enthusiastic at the opportunities afforded by this immense amount of material and was most extravagant in his praise of the work of our own Dr. Weir Mitchell, accomplished under somewhat similar circumstances.

The number of cases in which joints had been injured and the lack of the proper facilities in most of the hospitals for the after-treatment of these cases soon led to the establishment of several hospitals devoted solely to mechanotherapy, in which this type of cases could be treated by massage, active and passive motion and other measures to prevent ankylosis. Many of the masseurs in these hospitals are soldiers who have lost their eyes during the war and who are now taking up this occupation for the future. The apparatus in these hospitals was varied and the patients seemed to

be under intelligent care.

The hospital assigned to the American Red Cross was a large and imposing casino, situated in a beautiful little park. The building itself consisted of a large central palmarium, with many shrubs and plants and roofed with glass. This was used as a recreation room, and also meals were served here to those patients able to walk. Communicating with this were several large rooms at the side, used, respectively, for restaurant, dance hall and baccarat in times of peace. These were large, airy and well lighted and afforded ample facilities for 200 patients, with the advantage that the whole establishment was on the same floor, and the restaurant kitchen below solved the food problem satisfactorily. Beds, sheets and blankets had been furnished by the hotels of the town, and with the aid of some contributions from American residents we were able to equip a small but fairly complete operating-room, and the necessary instruments we had brought with us. Good X-ray work, an absolute essential to this kind of surgery, was done in a building a short distance from the hospital, which necessitated the use of an ambulance to transport the patients. However, the ambulance service was quite efficient and we experienced few delays on this account. The French ambulances are very serviceable, consisting simply of a wooden body mounted on the chassis of any large touring car, so constructed as to hold four stretchers—three being placed crosswise and one on the floor underneath the others or six patients sitting.

Hospital trains varied considerably in make-up and in cleanliness. In the early part of the war many of the wounded were placed in cars which had been used for the transportation of horses and cattle towards the front, and many men were inclined to blame the extraordinary number of tetanus cases during the first two or three months to this insanitary procedure. However, the best opinion at present seems to consider that this early prevalence was due mainly to a lack of antitetanic serum and that the almost complete elimination of the disease during the latter part of the war is due to the routine injection of all men as soon as possible after the wound has been received.

The trains are made up either of the ordinary small freight cars so arranged as to carry nine stretchers, or passenger coaches were used with room for four stretchers to a compartment. An orderly is assigned to each car, and on all trains is a special car assigned to

the medical staff, usually three or four doctors.

In this connection it may be of interest to describe briefly the various stages a wounded man passes through in his progress from the front towards a base hospital. Every French soldier carries with him as a part of his regular equipment a small emergency packet containing a piece of sterile gauze and a bandage. Connected with each battalion is a small dressing station where the wounded are collected and emergency dressings done and from where they are transported in stretchers to the first-aid station, where wounds are dressed carefully, treated with iodine and any severe hemorrhages stopped. Here also, as a routine procedure, all patients receive an injection of antitetanic serum. This station is located usually about a mile behind the firing line, and the men are now carried usually in stretchers to the field hospital, which collects the wounded from the entire division and which is usually situated about five miles in the rear. Here urgent operations are done and desperately wounded men are kept for a time at least. From the field hospital the wounded are now carried in ambulances to an evacuation hospital situated on a railroad, and here the men are distributed to the various hospitals in the rear. At the dressing station each patient is tagged, a simple diagnosis being written, with an indication of the relative gravity of the wound and the time that antitetanic serum was injected.

The incidence of tetanus during the first few months of the war was very high, and I think can be attributed entirely to lack of antitetanic serum. At this time it was quite rare to find a soldier who had received a dose before his arrival in the base hosptials. and as a result of this 10 cases developed among the first 3000 patients in Pau. These interesting cases could be definitely divided into three distinct classes—the acute cases with a short period of incubation, usually three to five days; those with an incubation period of from one to two weeks, and a peculiar mild type with incubation period of over two weeks. The acute fulminating cases of short incubation period were all invariably fatal within a few

days or hours after the onset and showed no response to treatment. This type was usually associated with extensive lacerated wounds. one case observed at a hospital for German wounded having suffered an extensive compound fracture of the right leg, with a large, dirty wound involving the soft parts of the left thigh with loss of substance. This patient developed symptoms of tetanus six hours after admission and died 18 hours later. Another remarkable case occurred at one of the French hospitals during May at a time when all the wounded were receiving antitetanic injections at the front. This patient had received a lacerated wound of the hand, but for some reason had refused to submit to the injection at the dressing station. He arrived at the hospital with about 100 other more or less badly wounded men, developed tetanus within 12 hours after admission—an incubation period of about four days and died in 36 hours. This was, to the best of my knowledge, the only case of tetanus occurring in the region of Pau after January.

The second group of cases was the most frequent, and the mortality seems to be at least 60 per cent. One interesting case of this type developed in our hospital following a rather small but badly infected wound of the thigh, the incubation period being 13 days. The symptoms became more and more aggravated until the patient's condition was very grave and he was rapidly becoming exhausted from repeated spasms. Five days after the onset a lumbar puncture was done and 8 c.c. of 25 per cent. magnesium sulphate introduced. A remarkable change was noted almost immediately, and after several days in a semi-comatose state the patient made a satisfactory but slow recovery. This patient was also treated with chloral, bromides and repeated injections of antitetanic serum, which, however, had apparently had little effect on the progress of the disease. It would seem that the administration of magnesium sulphate intraspinally in properly selected cases would offer the best chance for reducing the mortality in this type.

The last group of cases is characterized by the long incubation period and the mild symptoms. One case observed in the German prisoners' hospital had been wounded in the leg by several shell fragments 17 days before the symptoms developed, and then ran a light course, with but little elevation of temperature, some cramps in the wounded leg and trismus. There were never any general spasms or any suggestion of opisthotonus, and the patient made an

uneventful recovery.

The wounds which we saw were with few exceptions all infected. It may be stated that those caused by shell fragments, shrapnel bullets or bomb fragments will be complicated by infection certainly in 90 per cent. of the cases, and also lesions caused by rifle bullets are seldom clean, although we had a few of these throughand-through shots which healed almost immediately. At our distance from the front we saw no recent abdominal cases, as it is the practice to keep this class of patients as far as possible without transportation in the field hospitals. The mortality of these cases

must be very high when one remembers the relative rarity of an uninfected wound.

Many varieties of treatment have been used in badly infected wounds. Carrel, who has charge of an excellent hospital at Compiégne, has reported excellent results using continuous irrigations of hypochlorite of lime solution. Other surgeons have been equally enthusiastic about hypertonic salt solution, which they claim causes a hypersecretion from the wound and an early riddance of infection. Some English surgeons have used various forms of antiseptic paste, but this unsurgical procedure, which tends to dam up the secretions, has been discarded. For the treatment of the wound immediately after its infliction iodine is used invariably on account of its efficiency and convenience. English writers have recommended the application of pure carbolic acid to all fresh cases, but this, too, would seem distinctly contraindicated. In our own cases irrigation with salt solution and frequent changing of dressings gave excellent results, and in the large, badly infected wounds. with loss of tissue and very foul odor, dilute solutions of potassium permanganate had a wonderful cleaning and deodorant action. Ample drainage must, of course, be provided, and the modern tendency seems to be to introduce as little packing as possible, allowing the wound to drain itself.

Compound fractures of every conceivable nature are frequent and offer many problems in their treatment. Those involving the femur are the most difficult to treat successfully, as they are usually associated with badly infected wounds, requiring frequent change of dressings. Immobilization by means of light splints such as bamboo, which permits frequent change of dressings and continued extension, gives the best results. We were fortunate enough to have four cases of fractured femur from through-and-through shots which healed without infection. These cases were treated

by plating, and excellent results obtained in each case.

The convalescence of these cases of compound fracture is always slow on account of osteomyelitis; often repeated operations are necessary to remove sequestra, and this is especially noticeable in wounds involving the small bones of the foot, in which suppura-

tion often persists over long periods of time.

Typical infections with the gas bacillus are seen usually in the hospitals directly behind the fighting zone, and few of these cases are seen in base hospitals. We observed some infections very foul, which were associated with considerable gas production, edema and some emphysema of the surrounding tissues. These cases yielded rapidly to free incision, with hydrogen peroxide irrigations, and were probably infected with an organism of somewhat attenuated virulence which was destroyed before the onset of gangrene. The most virulent cases occur within a few hours after the wound has been received, the rapid invasion of the bacilli and the enormous production of gas causing tremendous pressure between the fascial planes, which shuts off the circulation, with gangrene as a

result. Attempts have been made to measure this pressure, and some observers at the American Hospital in Paris have found it to be above 300 mm. of mercury. In these cases a rapid amputation, irrigations and injections of hydrogen peroxide, with no attempt

to close the stump, offer the only chance for recovery.

Aneurysms were in our experience rather more infrequent than would be expected. One case occurring in a French hospital, involving the femoral artery several inches below Poupart's ligament, would have been an excellent one in which to apply the principle of gradual occlusion by means of bands. The artery was, however, ligated just above the sac, with an excellent result and apparently no interference with the circulation. In our own hospital an arterio venous aneurysm involving the posterior tibial was operated upon, the vessels ligated and the sac dissected out as far as possible, a procedure which, however, resulted in considerable hemorrhage, necessitating packing. The end result was excellent and the patient was discharged without disability.

Nerve injuries were, of course, very frequent and we encountered many examples. Experience with these lesions would tend to support views already held that the best results are to be obtained from operation as early as possible, the ends of the nerve being freed from surrounding scar tissue and a suture done. As soon as possible after operation these cases would be sent to the special hospital for nerve injuries at Bordeaux, where proper electrical treatment could be started. Those cases complicated with suppuration are, of course, far less favorable, as operation is contraindicated until the infection has been controlled, and the time elapsed until this can be accomplished and the density of the sear

are factors which make success doubtful.

On account of the nature of the fighting, head injuries are frequent and the mortality when the brain is involved is very high. The majority of these wounds are caused by shell fragments, and when one considers that the projectile has to pass through a dirty cap and then through still dirtier hair, it is hard to understand how infection can be escaped. Yet we had one such case in which a rather large fragment lodged apparently in the right occipital lobe. He had slight epileptic attacks over a period of several weeks, but never showed any signs of impaired vision or of increased intracranial pressure, and was discharged later quite fit for duty. Those cases in which the fragment has penetrated deeply and is associated with infection usually result in an abscess and death.

Badly smashed joints are among the most dangerous wounds that one sees, are usually associated with severe infection, and seem particularly liable to secondary hemorrhage. One case of persistent and extensive infection of the knee finally necessitated amputation as a result of hemorrhage, and another case in which a partial resection of the knee was done died from septicemia and exhaustion. Conservative measures in many of these cases gave excellent results, but they are necessarily difficult cases to handle

on account of the necessity of immobilization, which renders ready access to the wound difficult.

General mortality figures in base hospitals would, I think, be somewhere between 2 and 4 per cent, but it must be remembered that the mortality in the temporary hospitals directly behind the lines is much higher on account of the head injuries and abdominal wounds, which are not as a rule sent to the rear. The percentage of soldiers who are fit to return to active duty I should consider to be somewhere in the neighborhood of 60 or 70, but this figure would, of course, vary with the gravity of the cases sent to the particular hospital. Compound fractures of the legs and extensive joint injuries will rarely be fit for any further offensive action other than work in a munition factory.

In conclusion I wish to say a brief word of appreciation of the patients themselves. Representatives of every station in life, they are without exception cheerful, patient and optimistic. Their confidence in one's efforts is implicit and their appreciation and gratitude is most touching to those who have been in contact with them.

Book Reviews.

THE FLY. By G. Hurlstone Hardy. With illustrations by Halford B. Ross. New York: Rebman Company. 1915. Cloth. 80 cents.

This little book of somewhat more than a hundred pages deals with the laudable object, the education of the public to the non-necessity of the fly. The habits, method of propagation and eradication of the fly is simply but eloquently told. Gradually the public is being awakened to the danger of the fly. It is only now, after a very active campaign, commencing to understand that the fly is not the innocent pest that it was once thought to be, but a very active disseminator of disease. However, with the exception of screening the house, not much effort has been made to eliminate the fly. It is therefore particularly appropriate that the book before us should have made its appearance, as it plainly shows that the fly is the result of filthy living. If refuse is not permitted to stand around, the fly will not have a favorable breeding-ground. The book should find its greatest usefulness as a high-school text-book, but it can be read with profit by everybody.

The Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. August, 1915. Published bi-monthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Paper. \$8 per year.

With their increasing appearance Murphy's Clinics lose none of their freshness or tone of originality. Each succeeding issue brings some message of practical import to the busy surgeon. And now it is hard to see how the surgeon did without them.

The present issue covers a large field. Many subjects of interest are treated in a method peculiarly Murphyism. There is a talk on syphilis, and articles on tumor of the parotid gland, early carcinoma of the lower lip, traumatic cervical spondylitis, tuberculosis of sternum and ribs, and several contributions of the subject at present most dear to Murphy's heart—bone implantation. It is up to you to make your choice. Subscribe to the publication and you will be happy.

Collected Papers of the Mayo Clinic, Rochester, Minn. Edited by Mrs. M. H. Mellish. Vol. VI. 1914. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Cloth, \$5.50 net. 1915.

The work being carried on at the Mayo Clinic is of such an extraordinary character that its collection into book form is an absolute necessity to the profession. Every year the staff is being augmented by enthusiastic scientists who are pursuing some special line of investigation of practical import to the surgical profession. Thus during the course of the year a great amount of literature is issued from the pens of members of the Mayo staff. So that these writings can be obtained with the least expenditure of effort, now for some years they have been annually collected and printed in book form. As a result of this practice we now have before us the sixth volume, which, like its predecessors, concerns itself chiefly with the methods emanating from the Mayo Clinic. The material of this clinic is so great and so diversified that the authors are enabled to speak authoritatively concerning the matter under discussion. As in previous editions, generous space is devoted to abdominal conditions and goitre, also goodly attention to the cancer question, technic, affections of the head, trunk and extremities and the ductless glands. Not only the surgeon, but the internist also and specialist will find these papers an invaluable aid in their work.

CANCER, ITS CAUSE AND TREATMENT. By L. Duncan Bulkley, A.M., M.D., Senior Psysician The New York Skin and Cancer Hospital, etc. New York: Paul B. Hoeber. Cloth, \$1.50 net.

This book is rather unique in so far as it deals with the medical aspect of cancer, a disease hitherto treated mostly from its histological and surgical aspects. Much labor has been expended in the effort to determine the cause of cancer, and book after book has been devoted to its surgical treatment, little heretofor having been written concerning its medical aspect. Bulkley is convinced that the basic cause of the disease resides in some derangement in the vital forces of the organism, as influenced largely by diet and mode of life. The author is correct when he states cancer is rarely treated medically before being subjected to operation, and practi-

cally never after. It is against such a practice as this that he voices his protest. Undoubtedly the medical profession as a whole will not subscribe to the ideas enunciated within the above-mentioned book. Although the proctocols are indeed revolutionary, they should be carefully digested before being subjected to contumely, as a man of the professional standing of Dr. Bulkley would not without due consideration place deductions so at variance with present-day notions. Though the reviewer cannot truthfully record an instance in which he personally knows of a cancer being cured by medicinal agents, he is broadminded enough to grant that such is within the realms of possibilities. At any rate, the present work should stimulate interest in and renewed effort to conquer this dire malady.

Medical Ethnology. By Charles E. Woodruff, A.M., M.D., Author of "The Effects of Tropical Light on White Men and Expansion of Races;" Associate Editor of American Medicine; Lieutenant-Colonel United States Army, Retired; Member American Therapeutic Association; Fellow Medical Association of the Greater City of New York; Member American Association for the Advancement of Science. New York: Rebman Company. 1915. Cloth, \$2.00 net.

The above-mentioned book is devoted to a discussion of the many factors which account for the present races and subraces of man. The author undoubtedly proves that all the laws which govern the evolution of adaptation of lower animals to the survival of the fittest apply with equal force to man. He states it fully explains the high death rate of immigrants and their eventual extinction or change of type. Much literature has been written on this subject recently, therefore the appearance of this book is particularly propitious.

What Every Mother Should Know. By Charles G. Kerley, M.D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. New York: Paul B. Hoeber. Paper, \$0.35 net. 1915.

This little booklet, written in popular style, contains the essence of what every mother should know concerning the rearing of her young. It contains concise and practical lessons on baby hygiene, including clothing, sleep, the bath, bathing, maternal nursing, artificial feeding, food formulas for well children, feeding from the first to sixth year, dentition and other necessary information. For the price there is not a book on the market that comes anywhere near touching "What Every Mother Should Know." It is concise, practical and thoroughly reliable. With these qualifications it should prove very acceptable to mothers. The medical profession, without any compunction, can give it their heartiest endorsement.

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BALTIMORE, JANUARY, 1916

EDWARD LIVINGSTON TRUDEAU.

THOUGH not a Marylander, still his lifework was so intimately connected with Marylanders that it is not amiss to remind our readers of the accomplishments of Edward Livingston Trudeau. Needless to remark, every physician in Maryland is thoroughly cognizant of the part played by Trudeau in the conquering of tuberculosis. His efforts in this line made him famous, as well as the foremost tuberculosis expert of America. The chief element in the attaining of this pre-eminence was his advocacy and practice of open-air treatment for tuberculosis, supplemented by moderated exercise and plenty of good nutritious diet. He was the first disciple of the great open for tubercular sufferers, and until the day of his death, November 15, 1915, preached constantly the benefits to be derived from the fresh-air treatment of tuberculosis. At the early age of 26, and just launched in the practice of his profession, he was condemned to death from tuberculosis. Realizing that such would be the result, he determined to make an effort to stay the sentence by removing from New York city, where he lived, to engage in hunting in the Adirondacks. Seeking out Paul Smith's rendezvous for hunters at Saranac, he assiduously set about strengthening his constitution. Much to his delight after two years' life of huntsman, he found himself in a much improved physical state. He therefore decided to engage in practice as a backwoods physician. A few years of this life strengthened him in the conviction that the proper treatment of consumption was open air, rest and nutritious diet. Working upon this supposition, he built a shack for the accommodation of a few patients. Laughed at and ridiculed by the profession, he persisted in his missionary work and had the great pleasure and satisfaction of seeing his theories proved true and accepted by the medical profession as the sensible method of tuberculosis. From this small beginning the plant expanded into the magnificent sanatorium of today.

Dr. Trudeau was born in New York October 5, 1848, and was the son of Dr. James Cephise Berger Trudeau. A year after his graduation in medicine he began practice in New York city, but on account of tuberculosis of the lungs was forced to discontinue practice. He therefore decided to go to the Adirondacks, His belief in the efficacy of fresh air in the treatment of incipient tuberculosis worked so well in his own case that in 1884 he founded the Adirondack Cottage Sanatorium for the treatment of incipient tuberculosis in working men and women, the first institution of its kind to be established in the United States. As a result of the example set in the advancement of the methods of the treatment of tuberculosis, Dr. Trudeau was honored by the following institutions with their honorary degrees: M.Sc., by Columbia University, in 1889; LL.D., by McGill, in 1904, and by Pennsylvania in 1913. Some people have greatness thrust upon them, others are born to greatness, and still others fight their way to greatness. Dr. Trudeau fought his way. Surely the prospects of ever attaining any eminence in the profession must have been remote from his mind when compelled to forego his practice and retreat to the mountains. But like other great men, he had the idea in him, and through what at first seemed misfortune, but which later turned out to be a blessing in disguise, was enabled to put his theories to the acid test, experience and won. These theories are now acknowledged the world over, and as a testimonial to their efficacy is the large number of arrested cases spread throughout these United States. In conjunction with the Cottage Dr. Trudeau also established the Saranac Research Laboratory for the study of tuberculosis, the first institution of its nature in the United States. Other members of the profession in the United States have done pioneer work along special lines, but few if any have done more to advance the happiness and well-being of a sorely afflicted group. Doomed to death when diagnosticated tuberculosis, with not a ray of hope held out of a possible recovery, Trudeau has proven that when gotten early many of these patients can be to all intents and purposes cured and restored to the community as active wage-earners. No one in the medical profession is more deserving of the loving gratitude of his fellow-man. Sickly and of frail physique, for more than forty years he labored indefatigably for the tuberculous; in practice and by word of mouth and by writing he always held out a word of encouragement to those afflicted with tuberculosis. Though gone, his example has so engrafted itself on the profession that he will always live.

Medical Items.

The permanent organization meeting of the Interstate Psychiatric Association was held at the Sheppard and Enoch Pratt Hospital at Towson, Md., November 23. Addresses were made by Dr. Lewellys F. Barker, Baltimore, and Dr. Henry A. Cotton, Trenton, N. J. A constitution, which had been drawn up, was voted on.

ACADEMIC DAY was observed at the University of Maryland on November 11. Announcement was made by the Provost, Dr. Thomas Fell, that the University officials hope in a short time to acquire an endowment of a quarter of a million dollars at a very conservative estimate. He also added that the outlook for making the University of Maryland the recognized State university by the next Legislature was encouraging. The event was the first since the merger of the College of Physicians and Surgeons. The three institutions now incorporated as the University of Maryland—the University proper, St. John's College and the College of Physicians and Surgeons—were represented.

Dr. A. H. A. Mayer announces the removal of his office and residence to 2438 Eutaw Place on November 1, 1915. Consultation by appointment; telephones, Madison 1853 and Madison 1895.

Dr. James J. Carroll announces the removal of his office from the Professional Building to 405 North Charles street, Baltimore. Consultation hours, 9 A. M. to I P. M. His practice is limited to eye, ear, nose and throat.

Dr. Roades Fayerweather, after a year's absence in the service of the American Red Cross in Europe, has resumed his practice of Orthopedic Surgery at his offices in the Buckler Building, 529 North Charles stret, Baltimore. Office hours, 10 to 12 A. M. and by appointment. Telephone, Mt. Vernon 936.

Dr. Frederick Janney Smith, chief resident physician of the private medical wards at the Johns Hopkins Hospital, has resigned to become superintendent of the Henry Ford General Hospital in Detroit.

Dr. Ralph B. Seem, lately in charge of the dispensary of Johns Hopkins Hospital, has been made first assistant superintendent to fill the vacancy caused by the resignation of Dr. Karl H. Van Norman. Dr. Lewis A. Sexton has been promoted from the admitting physician to

the directorship of the dispensary, succeeding Dr. Seem.

Dr. Martin L. Jarrett, of Jarrettsville, who was operated on at St. Joseph's Hospital recently, is improving.

Dr. Charles A. Hellingsworth, Belair, Md., is reported to be critically ill.

Dr. William B. Hunter, superintendent of Kernan's Hospital and Industrial School for Crippled Children, has resigned. He will practice in Wilmington, N. C.

Dr. Harry Lyman Whittle announces the opening of his office, laboratory and operating rooms for diagnosis, study and treatment of diseases of infancy and childhood at 5 East Mt. Royal avenue. Consultation hours, 2 to 5 and by appointment. Telephone, Mt. Vernon 756.

Dr. David Silberman desires to announce the opening of an office at 1729 Linden avenue. His practice is limited to gynecology and abdominal surgery. Telephone, Madison 85. Consultation by appointment.

The medical societies of the University of Maryland School of Medicine and the College of Physicians and Surgeons were merged at a special meeting of a committee appointed by the combined faculties at a recent meeting. Since the combination of the two schools of medicine has become permanent, it was decided that a single medical society representing both schools would bring about the best results. Dr. Albert H. Carroll was elected chairman; Dr. Elmer B. Freeman, vice-chairman, and Dr. Alexius McGlannan, secretary.

The engagement is announced of Dr. John T. King, Jr., Johns Hopkins Medical School, of Baltimore, Md., to Miss Charlotte Markell Baker of Frederick, Md. No date has been set for the wedding. Dr. King is resident assistant to Dr. William S. Thayer at Johns Hopkins Hospital.

BIRTHS.

To Louis Cotton Skinner, M.D., University of Maryland Medical School, 'oi, and Mrs. Skinner of Greenville, N. C., October 16, 1915, twins—Louis Cotton, Jr., and Edward Ficklin.

RECENTLY, to Dr. and Mrs. Roland Barker Whitridge of 1726 I street. Washington, D. C., a son—Roland Barker Whitridge, Jr. Dr. and Mrs. Whitridge formerly resided in Baltimore.

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ON THE EARLY RECOGNITION OF CANCER OF THE STOMACH.*

By Julius Friedenwald, M.D.,

Professor of Gastroenterology, University of Maryland School of Medicine, and College of Physicians and Surgeons, Baltimore, Md.

WE must all realize the great importance of the early recognition of gastric cancer, for unless the diagnosis of this affection be made early, the result of surgical interference can only be in the nature of relief, and not of cure. The gravity of this statement can be more fully realized when I point to the fact that of a series of 266 cases of my own operated on, there is not a single patient

living.

The diagnosis of cancer of the stomach is exceedingly simple when the disease is fully developed, but when the affection is still in its incipiency there is nothing more difficult; for it is a well-recognized fact that the earlier the stage of the growth the less positive are its manifestations. If one analyzes a series of cases of gastric carcinoma, one finds that the patients developing this affection are not, as a rule, chronic dyspeptics, and, excepting in those instances in which the disease has developed from a previous gastric ulcer, have usually been in good health, with a normal digestion, until the onset of this disorder. That the onset of this affection is sudden in a large proportion of cases is a fact of great value in the early diagnosis of this disorder.

In arriving at an early diagnosis, the most important signs and

symptoms must be taken into consideration.

I. Anorexia.—Anorexia is a very prominent symptom of gastric cancer, and was present in over 89 per cent. of our cases. It varies markedly from a slight loss of appetite to an absolute aversion to food.

The aversion for meat, which frequently occurs early in the disease, is of some diagnostic importance.

2. Vomiting.—Vomiting is also of frequent occurrence in gastric cancer, appearing in 89 per cent. of our cases, in 67 per cent.

^{*}Presented at the meeting of the Medical Society of the University of Maryland December 14, 1915, and abstracted from the New York State Journal of Medicine July, 1915.

of which it was in no way associated with the ingestion of food. While this symptom is exceedingly frequent, it occurs so irregularly and bears such slight relationship to food that it can be accorded only minor importance in diagnosis.

- 3. Pains.—In our cases pain was present in 93.1 per cent. It was present as an early sign in 84 per cent. of our cases, but on account of its variation as to location and extent its diagnostic significance as an early sign of gastric cancer is lessened.
- 4. Hematemeses.—Gastric hemorrhages occurred in 22.7 per cent. of our carcinoma cases, of which 88.7 per cent. were multiple and 10.8 per cent. single hemorrhages. It appeared as an early sign in 21 per cent. of these cases, and as a late sign in 79 per cent. Inasmuch as gastric hemorrhage appears early only in a small proportion of cases, this sign can only rarely be relied upon as an early sign of this disease, but when it occurs, especially in the coffee-ground form, it presents additional evidence in the diagnosis.
- 5. Melena.—Tar-colored stools appeared in 18.9 per cent. of our cases, much less frequent than hematemesis, but in only a small proportion of these cases did it appear as an early sign, that is, in 14 per cent., while it appeared late in 86 per cent.

Occult Blood.—A positive reaction for occult blood was obtained in 92.5 per cent. of our cases. When occult blood is once observed it can usually be found at any time afterward. The presence of occult blood is a very constant as well as an early sign of gastric cancer.

- 6. Dysphagia.—Dysphagia existed in 6.9 per cent. of our cases, that is, in those cases in which the growth involved the cardiac orifice. It appeared as an early sign in 78 per cent. of these cases, and, according to our experience, when present in patients over 40 years of age is a sign of great significance.
- 7. Loss of Flesh.—Loss of weight is a sign of considerable value. It occurred in 98.5 per cent. of our cases, in which there was a loss of flesh of from 5 to 78 pounds. This sign is of importance as an early sign of cancer, yet periods of improvement with gain of flesh are not uncommon in the early period of the disease, and this should be borne in mind in the early diagnosis of gastric cancer.
- 8. Presence of Palpable Tumor.—While the presence of a palpable tumor is the most valuable diagnostic sign of gastric cancer, yet this sign is usually a late manifestation of the disease.
- 9. Dilatation of the Stomach.—Dilatation of the stomach due to pyloric stenosis occurred in 47 per cent. of our cases, and this condition when present early is of the greatest diagnostic value. It occurred as an early sign in 52 per cent. of our cases of gastric cancer.
- 10. Ascites and Edema of the Extremities.—Ascites or edema appeared in 21.1 per cent. of our cases, but only in 24.6 per cent. of

these cases were these signs presented before the first six months after the first appearance of symptoms, indicating that both ascites and edema are late manifestations in gastric cancer.

11. Certain Roentgenological Findings.—Roentgen-ray examinations have been of great help in many instances in the diagnosis of gastric cancer. Inasmuch as the largest proportion of cancers have their seat at or around the pylorus, early obstruction is not infrequent. In the early stages of this disease the obstruction is incomplete, and it is only by means of the X-ray that beginning or

partial obstructions of the stomach can be determined.

The most important X-ray evidence, however, of cancer is a filling defect, which remains constant in all of the plates. When the disease has been present for some time, this is in advanced cases, the defect is large and very irregular, and there is an absence or peristalsis at this area. In the early cases, however, there is but a slight thickening at the cancer area, with weakened peristalsis, which usually makes the diagnosis exceedingly doubtful and even at times impossible.

12. The Gastric Secretion.—In 89 per cent. of our cases there was an absence of free hydrochloric acid. The absence of free hydrochloric acid is an early sign in many instances, and when taken in conjunction with other symptoms, is a sign of real importance, and yet an absence of hydrochloric acid is so frequently observed in affections other than cancer that this sign loses much of its significance.

It appeared as an early sign in 76 per cent. of our cases. The diagnosis of cancer is greatly strengthened when in the absence of free Hcl lactic acid is found. The Oppler-Boas bacilli were observed in 79 per cent. They were found only in those instances in which lactic acid was observed, and appeared as an early sign in 74 per cent. of our cases. This finding, when accompanied by the presence of lactic acid and an absence of free Hcl, is a sign of

great diagnostic importance.

The Wolff-Junghans Test.—We have utilized the Wolf-Junghans test in 52 of our cases of gastric cancer. In all of these cases there was an absence of free hydrochloric acid. In 44 cases (84.6 per cent.) there was a positive reaction obtained. Of these, 14 were early cases, and the reaction was positive in 11 (79.5 per cent.) This test is an extremely valuable sign when positive in the early diagnosis of gastric cancer, especially when there is an absence of free hydrochloric acid, and when lactic acid is present in the gastric contents.

13. Sero-diagnosis by Abderhalden's or Kelling's Methods.—Inasmuch as many of the signs and symptoms of gastric cancer are often indefinite and late manifestations of the disease, it has been hoped that serum tests might reveal early evidences when the physical signs are yet indefinite and misleading. It must be remembered, however, that in order that conditions favorable for obtaining positive reaction may exist, the growth must have

assumed at least such proportions as to produce a generalized blood reaction with ferments or with antibodies in the blood.

I. Abderhalden's Serum Test.—My colleague, Dr. Charles E. Simon, has tested this reaction in a number of my cases of gastric carcinoma, and finds that the reaction cannot be considered specific for this disease, for there may be a variation in two directions, as there may be failure to get the reaction in undoubted cases of malignancy, and on the other hand, there may be obtained a positive result in conditions which are not malignant.

II. Kelling's Serum Test.—Recently Kelling has described a serum test for the diagnosis of carcinoma based on the fact that the serum of patients affected with cancer possessed the property of dissolving the red corpuscles of certain other species, notably the hen. He noted the hemolysis after incubating equal parts of the diluted serum in a 5 per cent. suspension of hen's corpuscles for 24 to 48 hours. Kelling found that this test gave positive reactions in 90 per cent. of cases of gastric cancer.

Dr. Simon has tested this reaction in a number of my cases of gastric cancer, and finds that it is in no way specific of this disease. The reaction occurred in other conditions, and was not

present in a number of cases of cancer.

In drawing our final conclusions concerning the significance of the various signs and symptoms of gastric cancer, it is quite evident that many are general manifestations frequently present in other gastric affections, and not characteristic of this condition alone, while those which are more characteristic are usually late developments. On this account, the late diagnosis of cancer is rendered exceedingly simple, while on the other hand, the early diagnosis is, however, exceedingly difficult.

In reaching definite conclusions, it is therefore important to rely not upon a single sign or symptom, for there are no pathognomonic signs of early cancer, and only after a critical review of the history, physical examination and study of the symptoms, including examination of the gastric contents and stools, can definite

conclusions be drawn.

Inasmuch as surgery offers the only cure for gastric cancer, and then only when the diagnosis is made early, the question of early diagnosis is of the greatest importance. How can this be made?

As yet it is impossible to reach very definite conclusions at the early stage of the disease, except in rare instances. But it behooves us to carefully observe all of our cases of gastric disturbances most carefully, and to view with suspicion all patients over 40 years of age who show no improvement after a short course of medical treatment.

Inasmuch, therefore, as our means of arriving at an early diagnosis of cancer of the stomach are exceedingly insufficient, and until more certain methods of diagnosis are available, exploratory incisions should be urged upon all individuals over 40 years of age having gastric symptoms which are not relieved after a few

weeks of treatment; especially is this the case if the patient presents a history of rather abrupt onset, some loss of flesh, an absence of free hydrochloric acid in the gastric contents and occult blood in the stools.

Even under these conditions many cases will be operated on too late, for there can be no question but that gastric cancer may be present for some time and may assume considerable proportions even before marked symptoms of indigestion are manifested.

SURGICAL TREATMENT OF GOITER.

By Robert Parke Bay, M.D.

In considering this subject, the treatment of various lesions involving the thyroid gland, with special reference to the advisability and results of surgical interference, it is necessary to have a fair knowledge of the character of the tumor. For this reason it is necessary to divide diseases involving the gland into several classes.

First, in the clinical classification, we may consider the simple and toxic form.

In the anatomical classification we recognize two forms, the diffuse and nodular.

The diffuse type of hypertrophy may show itself in two forms:

(a) Colloid goiter. In this form the amount of colloid is so greatly increased that the follicles of the gland are often greatly dilated, and the epithelium lining of the same more or less flattened or destroyed in some cases. The septa between neighboring follicles may be broken through and absorbed. If sufficient dilation and confluence of follicles is brought about we have the cystic condition (cystic colloid goiter). (b) Parenchymatous goiter. This form consists in the glandular proliferation, or more closely resembles a new growth. Solid masses are formed much in the same way as the fetal thyroid is formed. The colloid is small in proportion in this form, but we have an increase in the cellular elements, and consequently the following: The first type represents the simple, while the second is the type associated with hyperthyroidism.

It is not always the largest goiter that produces the most marked symptoms; in fact, it is frequently the reverse. It is also well known that all goiters are not necessarily surgical conditions, and it is my opinion that all enlargements of the thyroid should have medical treatment before an operation is advised. This not only may cure the condition in many cases, but will be of value prepara-

tory to an operation.

The medical treatment, briefly, should consist in rest, electricity and calcium lactate given in large doses internally for several months, after which time, unless marked improvement has taken place, an operation should be advised.

The question necessarily arises, What symptoms demand surgical interference? In simple goiter many have them performed for the cosmetic effects, but the great majority have an obstruction to the respiratory passages, or pressure on the trachea. Occasionally we have a substernal goiter the result of massage, or osteopathy, as one of my cases was changed from a simple hypertrophy, with no symptom, except the enlargement, to a dangerous and troublesome condition, the result of massage. This goiter could only be seen in the suprasternal notch during swallowing. The interference with respiration was marked, the patient being unable to sleep unless propped on pillows, and being in constant fear of suffocation. The symptoms entirely disappeared following thyroidectomy.

All cases of goiter-producing symptoms which have not been benefited by medical treatment should be operated upon, namely: Such symptoms as (a) distress from pressure upon the trachea, or esophagus, (b) pains from pressure, (c) unsightly deformity, (d) discomfort due to weight of an enlarged gland, (e) increasing symptoms of hyperthyroidism not yielding to the medical treat-

ment.

The character of operation depends largely on the symptoms presenting themselves; for instance, the cystic goiter may be relieved by the simple enucleation of the cyst, while the severe case of hyperthyroidism, with vasomotor disturbances, tremors, mental irritability, tachycardia, loss of weight, myocarditis, kidney changes and marked exophthalmos, are best treated by first ligating the vessels, and, after the symptoms have subsided, the removal of the gland. The above symptoms are frequently seen in a mild degree with only slight enlargement of the gland. These cases have frequently been treated for neurasthenia, gastritis and other nervous conditions. Many have even been advised to enter some institution for mental diseases, with little or no prospect for a future. One of my cases represents this class, where a young girl was advised to enter an institution for feeble-minded and told she was not likely to ever be of service to herself or family. After the removal of two-thirds of her thyroid, which was only slightly enlarged, she was completely cured, and has taken up the profession of nursing, leading a class of 20 others, and, while not a robust individual, enjoys good health, with occasional slight nervous symptoms following the loss of rest. These cases are frequently noted following an acute infection about the throat or sinuses, and if taken early will respond to medical treatment. Two cases are under observation at the present time which could well be termed an acute inflammation of the thyroid, the patient awakening with pressure symptoms in the throat, with an enlargement and tenderness on pressure over the thyroid gland, with slight fever and marked acceleration of the pulse. Both cases were preceded by an infection of the tonsils, one involving the antrum.

Both cases are being treated by a specialist, and the symptoms are

apparently subsiding.

During the last 10 years the operation of thyroidectomy has changed in the minds of the surgeons and also the laity. It was formerly looked upon as one of the most dangerous of all major operations, while at the present time it is looked upon as one of the safest major operations. This paper embraces 25 consecutive operations without any mortality. The dangers not to be overlooked and to be fortified against are (a) anesthetic, (b) shock, (c) hemorrhage, (d) hyperthyroidism, (e) infection, (f) injury to the recurrent laryngeal nerve, (g) injury to the parathyroid glands, (h) air embolism, (i) collapse of the trachea with asphyxia.

CHOICE OF ANESTHETIC.

Ether has been universally used in my cases, with good results, and I feel, with far more satisfaction and with less shock, than any of the local anesthetics. The anoci method of Crile was used in two cases without any appreciable effect; it prolongs the operation, and therefore increases the danger. The anesthetist should be an expert, and should prepare in the same manner as the surgeon and assistants, wearing rubber gloves with sterile gown. The ether mask and coverings should be sterilized, and the ether can covered with sterile towels. This enables the anesthetist to hold the patient's jaw forward, also to keep the head still, and does not obstruct the field of operation. The anesthetic should not be started until the patient is completely prepared. The iodine preparation of the skin is advisable, as it does not require washing or manipulation of the gland. The patient is placed in a semi-upright position, with a small pillow under the shoulders, throwing the gland forward as prominently as possible. Shock is seldom encountered, as the operation is of short duration and attended with little loss of blood. Hemorrhage of any consequence is seldom noted, and is controlled by the ligation of the suprathyroid vessels and by clamping the vessels as they enter the capsule, as all operations should be performed within the capsule.

Hyperthyroidism following operation is the real danger to your patient. It is due either to absorption of the thyroid secretion pressed out of the gland and into the circulation, or of thyroid secretion of toxic blood absorbed from the wound surface. The latter is, in my opinion, the chief cause, and to combat this I have kept a constant stream of sterile salt solution flowing during the operation, so preventing blood from remaining on the surface and being reabsorbed. The results have been more than satisfactory, as shown by these cases, and in none of these cases have the thyro-

toxic symptoms been increased following operation.

This is not difficult to perform, the only disadvantage being the wet dressings, which amounts to little, as no case has developed bronchitis or pneumonia, and results are very gratifying.

Parathyroids and the recurrent laryngeal are never injured if

the operator stays within the capsule, as they are both situated

behind the capsule.

The after-results following partial thyroidectomy have been very satisfactory, and in only one case did the portion left show any signs of hypertrophy, and that not to such an extent as to require its removal. The steps of the operation I will not describe, except to say that the transverse incision should be made as low down as feasible, and all cases should be drained. It is seldom necessary to cut across the muscles, as they can be retracted and after the delivery of the gland act as support during operation. The capsule and fascia should be sutured with catgut, and a subcutaneous silver wire suture is used to close the skin encircling the tube, and after the drains are removed this is pulled tight, almost completely closing the external opening. The drainage is continued from 48 to 72 hours, and during this time the cavity is irrigated with sterile salt solution every 24 hours. After a few months the scar is hardly perceptible, easily hidden by a string of beads, thereby not interfering with a low-neck gown. These cases, while not a large number, present some rather interesting conclusions:

First—Thyroidectomy is not attended with the high mortality

that was formerly believed.

Second—The results of thyroidectomy in all classes have been very gratifying, the mild and severe thyrotoxic symptoms clearing

up with marked rapidity.

Third—Enlargement of the thyroid gland, with over activity, frequently follow acute infections about the throat, mouth and sinuses, leading one to believe that infection is an element in the etiology.

FIRST AID INSTRUCTION TO POLICE FORCE OF BALTIMORE CITY.

By Joseph M. Craighill, M.D., Chief Surgeon.

(LETTER TO SECRETARY OF THE AMERICAN FIRST-AID CONFERENCE).

My Dear Doctor—In reply to your letter as to what has been done relative to first aid to injured by the Police Department of this city, I enclose the report of Lieutenant George E. Lurz, who has been a most efficient teacher and takes great interest in his work.

In the latter part of 1913, or early 1914, I was ordered by the Police Board to look into establishing first aid instructions to the

police force as far as practicable.

After investigating the Pennsylvania Railroad mode of instructions and writing to Major Patterson of the Red Cross organization, I obtained a number of first aid books gotten up by that society and distributed them in the department, where I thought

they would be useful in disseminating the knowledge I wished to impart.

It was hard for me to decide just how much instruction these men should receive, also how to get them informed about first aid subjects without making them think they had missed their calling by not being medical men.

Another difficulty about said instructions was that it takes the policeman away from his beat more than he could well be spared in a city where we need at least 100 to 200 more men than are on the roll at the present time. The present available force is about 700 men, with an average of from 25 to 50 men constantly on the sick report due to sickness and injury.

My first efforts of instruction were to give a few talks to the captains of the department and to distribute a first aid book to each one. Later, I came to the conclusion that I had started at the wrong end of the line; the probationer policeman was the man to teach and gradually work on up the line toward the captains.

With this idea in mind, it was thought best to have this subject taught at the regular school of instructions of this department, located at the Northern Police Station. These young men are there put through a regular course of training until they are proficient enough to graduate, and the first aid course was installed in this curriculum. Lieutenant Lurz, assisted by the instructor in the gymnasium, Officer Lynch, doing the teaching. These two officers were personally instructed by me, making a study also of the various first aid books and attending lectures when they could on this subject.

Lieutenant Lurz had been a teacher before he became a policeman, so his help has been very effectual. His instructions have been along the lines of simplicity to enable the policemen to aid the sufferer until he could be gotten into a nearby hospital; also how to do artificial respiration in gas poisoning; how to handle a man who had been overboard, etc. These men have also been instructed as to what not to do, which I think is nearly as important as the reverse. They are taught how to handle a wounded man by actual demonstration, how to get him to the ambulance,

how to apply temporary splints, etc.

After starting the instructions to the men, the next problem to solve was, how the policeman could get a first aid package when needed. Already a very much encumbered man, with his pistol, handcuffs and other things he is required to carry, I did not think it advisable to add a first aid package to his equipment. Noting a space in the lower part of each patrol box, I concluded if the first aid package could be made of a proper shape, a package in each box, it would be available not only for the use of the officer or for any passing doctor who might be trying to help out in an accident case on the street. With this idea in view, I wrote Major Patterson on the subject. He came to Baltimore and thought well of my suggestion and made a package for the department of the

proper size and shape. This package, it is needless to say, has been useful on many occasions, but this system might be improved on by possibly having a special box provided attached to the patrol The package contains a bandage, which the men are instructed how to open up without touching the pad which is to go next to the wound; also a triangular bandage, which can be used for all kinds of temporary uses, and two safety pins. Owing to the fact that the police patrol wagon is the only public ambulance service in the city, it was thought advisable to place some first aid packages, bandages, etc., in each wagon; also an outer splint, to extend from the axilla down the outer side of the body, and a shorter inner splint. I also had made for each wagon five leather straps, three shorter ones for the leg and two longer ones for the trunk. As you will see, the patrol wagon men, 51 in all, have been instructed how to use these appliances on injured people in getting them into a hospital.

Soon after starting our first aid work the Red Cross Society sent an instructor in swimming to this city, who gave lessons not only in swimming, but how to rescue and resuscitate the drowning man. All policemen around waterfronts were given instructions

by him.

This gentleman also prevailed on the Police Department to place, on the different piers about the city, life lines with a cork buoy big enough to hold a man up in the water. I am informed quite a number of lives have been saved by the aid of these buoys.

To sum up to the present time, 348 men have been instructed. All those coming on the force are sent to the school of instruction, and gradually all others of the younger men will in time be sent to the school of first aid.

This letter of Dr. Craighill gives in brief what has been done towards instructing the police force of Baltimore City on first-aid

methods since 1913.

Teaching of police officers about measures to be employed in the first treatment of injured individuals and in transportation is by no means an innovation. I distinctly remember when I was a medical student at the University of Pennsylvania, between the years 1888 and 1891, that Dr. J. William White, then associate professor of surgery at the University, was giving instructions on first aid to the police force. I do not know whether first-aid instructions were ever given before to the police force of Baltimore, but it seems to be the consensus of opinion that police officers should receive some instruction. The suggestion of Dr. Craighill that this instruction should be given the police officers during the probationary period is a good one.

The Secretary of the American First-Aid Conference has been authorized by a resolution to make a survey of the entire question of first-aid instruction and material among railroads, mines, industrial plants, in the police and fire departments and among the laity.

The National Board of First-Aid Standardization has been appointed by the President of the United States, and will endeavor to standardize material, methods, and what should be taught. There is no reason why there should not be a uniform system for the instruction of police officers throughout the United States and Canada.

The beginnings that have already been made in Baltimore coincide with the views of the majority interested in this subject, and it will be very interesting to have a report from Dr. Craighill from time to time as to the results that are obtained.

I hope to make a survey of what is being done throughout the United States and Canada on first-aid by the police and make a

report later.

It seems best in the beginning to give the simplest instructions and to employ the simplest forms of first-aid material. No progress will be made unless there are careful records which will allow an investigation of the results obtained.

I congratulate Dr. Craighill on his beginning, and trust that he will be able, after a longer experience, to make a definite report on

the results obtained.

Joseph C. Bloodgood, Secretary First-Aid Conference.

904 North Charles street.

THE THREE PHASES OF LIFE.*

By Clement A. Penrose, M.D.

Although greatly pleased by the honor of the invitation from Dr. Platt to address the graduating class of nurses of the Robert Garrett Hospital for Children, I was somewhat oppressed by two facts. First, the limited time at my disposal to prepare a suitable paper, and second, that Dr. Whitridge Williams was also going to speak at the same time. I knew from of old that he, a most versatile man, would leave very little unsaid, and I felt anxious to avoid the sad position of one who is forced to repeat the good points already brought out with the preface "as has been mentioned, or called to your attention, etc.," by the previous speaker.

To extricate myself as far as possible from such a deplorable position, I decided to wander somewhat from the usual lines of these addresses to nurses and take up a broad problem from a viewpoint which has been a great help to myself. I trust that the earnestness of my endeavor will more than overcome any flaws in

the exposition of such a great subject.

I feel certain from my knowledge of your excellent hospital, its

^{*}An address made March 17, 1915, to the Graduating Class of Nurses of the Robert Garrett Hospital for Children, Baltimore, Md. Published in part in the American Journal of Nursing, September, 1915.

Faculty and Board of Managers, that this graduating class is fully equipped in every way for taking care of children in all the various duties thereto appertaining. However, the troubles of a trained nurse do not end here. You are going out from the protecting influences of your "Alma Mater" and must come into intimate contact with a great number of different people, represented by the parents, grandparents and other relations of the children under your care, the people of the neighborhood in which they live, their ministers and teachers, and, probably worse than all, the strange doctors. Equipped as you are, I believe that the main difficulties in your work will come from these sources rather than the actual care of the children. It is along this line that I propose, by giving you a conception of what is normal in life, to urge you to be more tolerant of the abnormal traits and characteristics met with in other

people.

This is Saint Patrick's Day, the day sacred to the memory of the Patron Saint of Ireland. Tradition says that he removed all the serpents from this country, and I believe that none are to be found there now, if they ever really existed. It is most probable that these serpents represented rather some of the faults and sins of the Irish people—the snakes in their bosoms, as it were—which the good teachings of Saint Patrick were able to purge from them. In this sense, we all of us carry serpents about within us, among the most poisonous species being those of egotism and selfishness, without tolerance of the views, opinions and lives of other people. This is often due to the fact that we simply represent different stages in life from the person we are opposed to, accounted for by actual differences in years or by different methods of bringing up. Tolerance is the most important asset in a nurse's life. It will enable her to exist happily in every new environment in which she is placed and greatly increase her general efficiency. I therefore present the following aspect of life for your consideration, hoping that it might help you in your relations with other people, as it has helped me.

Under normal conditions life can be divided into three phases.

First—The phase of the body, in which the youth in his growing physique feels and meets more or less incompletely the demands of his physical being, athletic games, dancing, a military life, the instincts of sex, etc.

, Second—The phase of the mind when such enterprises are no longer satisfactory. A higher mental being has been created, often somewhat at the expense of the body, which is now unable to bear any great physical strain. The individual turns to more intellectual pursuits, which may carry him into active business or the realms of science, literature or philosophy, etc. In these vocations the same desire to excel or take a superior place in the world is manifest even in an increasing degree. This is essentially the ambitious

period of life, tempered, however, by experience, foresight and a more mature judgment.

Third—The phase of the spirit, the meaning of which term I shall not here attempt to define, but rather let my illustration explain. In this phase the bodily desires and satisfactions are practically nil; the mind, having attained the fruits of its efforts, finds them less sweet than was anticipated. Not functioning with the same degree of excellence as in the previous years, it is constrained to seek a less active sphere, where there is more time to consider the welfare of others.

The man or woman who has attained this ultimate perfection of life, a ripe old age, normally turns from the ambitions of the world to the serious contemplation of life's end and their own preparedness for this end. They are inclined to take up acts of philanthropy and mercy, and to enjoy more than ever the companionship of their grandchildren.

The biographies of men and women who have accomplished great things illustrate this point most accurately, as well as our own personal experiences with such lives. Material acts of philanthropy from great business successes like Andrew Carnegie, John D. Rockefeller, Henry Phipps, etc., who have endowed universities, hospitals, laboratories, libraries, etc., or made great art collections, are not, as many would infer, the acts of consciencestricken individuals, but are the actual necessities of lives that have been so productive in other ways. They must develop the spiritual side of their existence as a proper culmination of such great mental activity in the past. In the case of great teachers, philosophers, scientists, etc., the material evidences of such a trend may be lacking. We will, however, find in their writings, their teachings or addresses evidences of this spiritual evolution, which in some instances becomes almost fanatical in its manifestation.

Sir Isaac Newton, who lived to be 85 years of age, drew the conclusion from his successful investigations of Nature of the existence of a supreme being.

Alexander Von Humboldt in the latter days of his life became very charitable.

Louis Agassiz, the famous Swiss scientist, gave evidences of this spiritual growth in his declining years, when he remarked to a friend "that a species is a thought of the Creator."

Sir Oliver Lodge recently professed his faith in a public lecture. Our own Osler wrote a few years ago his "Science and Immortality."

These are but a few of the many illustrations which I could bring to demonstrate this point. The reason for this spiritual development as age advances in these great lives I shall not attempt to explain here, even if I could. The fact remains that it is a climax to a most complete and successful life.

The point that I wish to emphasize, however, is that we should

apply this conception of life to ourselves, and see to it that we develop our bodies, minds and spirits at the proper time and in a consistent manner. There are no very definite lines of demarkation between these phases of life, less so perhaps with men than women, where the menstrual function, motherhood, etc., fixes fairly definitely certain periods. The probability, however, is that wide degrees of difference are quite normal with various types and races of people. In the same person, owing to a number of circumstances, both internal and external, there is probably also a wide range. Great variations in the number of years allotted to these different phases relative to each other are quite possible without any serious effect. If certain limits of time, however, are exceeded by one to the detriment of the other, abnormal conditions must result, which are bound to produce bad effects on the health, happiness and success of the individual concerned.

To illustrate my meaning, it is well known that it is detrimental to a young person's future life to sacrifice the time necessary for proper mental development too much to athletics, dancing and other bodily pleasures, which should occupy a secondary place and not interfere unduly with the vocation which has been undertaken. On the other hand, plunging into a mental development without a well-equipped body is a greater mistake. Wires can never be well adjusted without suitable poles placed to support them. Firm

buildings cannot be erected without adequate foundations.

If the second phase of life—namely, the time devoted chiefly to mental growth—is protracted too far, the consequences may also be serious. A man who attempts to increase or continue his mental work at a time when his mind should be getting rid of its burdens will get a dubious result. A mental or physical breakdown will take place, or he becomes a business or professional failure. Should such a man live long enough (not usually the case) to reach an old age, there will be little spiritual development. The hard struggle, the reaction against sustained effort, the humiliation of failure, will produce a crabbed old age. He becomes miserly with his worldly goods, suspicious of his fellow-men, harsh in his judgments, a gossip, obscene often in his point of view, and with little thought of the sufferings of others.

Young women going out into the wide world in the active duties of nursing should regard these obvious successes or failures as sign-posts on the road of life. While you profit by the lessons they teach, at the same time cultivate the greatest tolerance for the lives of people in general. Who (in a developmental state themselves) can predict with certainty the ultimate success or failure of someone else? The frivilous young mother of the child you are called to attend, with whose love of pleasure you may not wholly sympathize, may nevertheless have within her being the possibility of great character development. Help her in the care of her

infant to the best of your ability and reserve your criticism. Remember always that the influence of a good woman is far-reaching, and the good nurse who is a good woman has a double advantage. Be tactful with the older relatives of your patients, who may often be very tiresome to you. They are apt to seek reasons for your conduct in a case, and possibly argue and debate your procedures and methods. Accept this in good faith, as part of the great game, cheerfully and reasonably. Should you occasionally run across one of those old failures in whom there is no spiritual trend, meet them with serenity and kindness, even though they may try maliciously to make you as unhappy and ill at ease as possible. You can win over even one of these in the eleventh hour. Work with enthusiasm and make the work of each day sufficient in itself. In this fact lies probably the greatest happiness, which is so beautifully exemplified in this quotation from the Sanscrit:

"Listen to the exhortation of the dawn. Look to this day. For it is life—the very life of life.

"In its brief course lie all the varieties and realities of your existence—the bliss of growth, the glory of action, the splendor of beauty.

"For yesterday is but a dream and tomorrow is only a vision, but *today well lived* makes yesterday a dream of happiness and every tomorrow a vision of hope.

"Look well, therefore, to this day! "Such is the salutation of the dawn."

If you are so fortunate as to meet in your professional vocations one of those rare old men or women who have reached the very fullness of life, a ripe old age, and who have normally developed their spiritual natures, have no fear of your relations with them. Medical work would be spared much that is irritating and disillusioning if all we contended with were as these. They will entertain and interest you and help you in many ways, although you cannot understand them, for who can comprehend "a peace

which passeth all understanding"?

In conclusion, I would advise the very promising looking graduates I see here before me to apply the foregoing to their own careers. While you are young, develop your bodies and preserve a good physical condition indefinitely by taking plenty of outdoor exercise and various physical recreations and diversions. Marry if the right man present himself, but do not make this an object in your work. Develop your minds along normal channels and prepare for a time when you should stop all active duties. Put by something for a rainy day. I can wish you all nothing greater than that, after a successful and happy life, you will reach an age free from tears, where the approaching end of life is contemplated as its fitting climax, and not as an eternal tragedy.

INCISED WOUND OF HEART, SUTURE AND RECOVERY.

By Wm. J. Coleman, M.D.,
Medical Superintendent, University Hospital, Baltimore, Md.

THE following case is thought to be worthy of permanent record, and is reported for what it may be worth:



Patient after recovery from wound of heart.

On the evening of August 20, 1914, Jennie G., colored, female, aged 36, was admitted to the University Hospital. She had been slashed across the chest with a razor, and was in a very serious condition. She was taken at once to the operating-room, and ether was administered by the drop method. The anesthetic was well borne. The field of operation was cleansed by scrubbing with green soap. On inspection two wounds were seen on the left anterior chest wall; one 2 c. m. in length, 4 c. m. to left of mid-sternal line on a level with the left nipple, which was superficial in character. The second or main wound extended from a point below

and to the outer side of the first wound, across the left breast and thence to the angle of the scapula. This incision had evidently been made with a sharp instrument, and had severed all the integuments and muscles, and had opened the thoracic cavity through the fourth intercostal space. The lung was seen to be collapsed, and an opening 2 c. m. in length was seen in the pericardium. The two wounds mentioned were connected, bleeding checked with clamps and ligatures and 10 c.m. of the fifth rib was resected at its anterior end. The pericardium was opened sufficiently to inspect the heart, and a wound was found in the left ventricle. This was closed with three catgut interrupted sutures, and a cigarette drain was placed in the pericardial sac and the pericardium closed with catgut down to the drain. The left pleural cavity was cleansed by sponging and two cigarette drains introduced, and the muscles and integuments sutured with catgut and silk-worm gut. The patient withstood the operation well, and when placed in bed her pulse was 106 beats per minute.

Following operation the patient steadily improved, the highest temperature was 101, pulse 130 and respiration 36, soon falling to normal. There was some drainage from both the pericardial and pleural sacs for two weeks, and the wounds were completely healed in a month. She was discharged, well, on September 25,

1914.

Wounds of the heart do not occur in civil life with great frequency, but when they do occur, they are generally fatal. They may be the result of stabs or cuts or of gunshot injuries. Naturally, gunshot wounds are more fatal than stabs; but prompt surgical interference may save the sufferer from impending death in both varieties of wounds in about 50 per cent. of the cases reaching the operating table.

"Simon has collected (up to 1912) 241 operations for gunshot wounds, with 124 deaths (51 per cent. mortality), and 200 operations for stab wounds, with 99 deaths (49 per cent.)."—Astley

Ashhurst's Principles and Practice of Surgery, 1914.

With these possibilities confronting us we should be prepared to extend to the heart the same treatment that has become recognized as essential in wounds of the abdominal viscera, namely, exposure and suture; and we shall have at least a considerable measure of success.

THE PHYSICIAN'S VISITING LIST. Lindsay and Blackiston's. For 1916. Sixty-fifth Year of Its Publication. Philadelphia: P. Blakiston's Son & Co. Leather, \$1.25 net.

The character and scope of this visiting list is so well established that it is unnecessary for us to add anything save to say that the present edition is of the same nature as its predecessors and every whit as useful. It answers the purpose admirably for which it is designed, and physicians contemplating the purchase of a visiting list will be more than satisfied with it.

REPORT OF CASE OF STAB WOUND OF THE PERICARDIUM.

By Fred Rankin, A.M., M.D., Instructor in Surgery, University of Maryland.

The first deliberate attempt at surgery of the heart was made by Callender in 1871, at which time a needle was removed from the myocardium. Roswell Park, in 1877, aspirated a myocardial abscess. Farina, in 1896, reported the first recorded case in which sutures were applied for a traumatic opening in the heart wall. In this case he used three silk sutures. The relatively rare occurrence of traumatic wounds of the pericardium and heart, which come to operation, perhaps warrants the report of a case, even though the outcome was unsuccessful.

On April 23, 1911, patient H. G., aged 35, laborer, was admitted to the surgical ward of the University Hospital from the accident room, with a history of having stabbed himself in the chest wall with a pair of scissors. Admission was at 7.30 P. M., the patient having stabbed himself a half hour previously. Practically nothing was known of the circumstances by the officers who accom-

panied him, hence an accurate history is unobtainable.

The examination showed a well-developed man, of average height, lying in dorsal decubitus position, and showing no signs of

pain or shock.

The pupils react to light and accommodation. The expression of the eyes is dull and vacant. The patient persistently refused to answer questions. On examination of the chest in the seventh interspace one-half inch internal to anterior axillary line is noted a small stab wound about 2 c. m. in length, from which a small quantity of blood is oozing. Auscultation reveals nothing; the expansion is shallow, but equal on both sides. Percussion note on both sides is resonant. Heart sounds are distinct, but rather distant, probably due to an emphysematous condition of the chest. Pulse rate is 88, temperature 96° by axilla. Patient is not in condition of shock.

Two hours later I visited the ward and made the following note: "Within the past two hours the patient's condition has become rapidly and decidedly worse. At present he shows marked symptoms of internal hemorrhage. Pulse is small, compressible, running—rate, 138 to the minute. Heart sounds are very distant and indistinct, respiration 26, shallow and gasping. His dyspnea is his most distressing symptom. Pupils are dilated, abdomen is negative, and there is no vomiting. Stomach tube was passed, and a small amount of clear fluid withdrawn."

Chest.—Right front—negative. Left front—on percussion, a quadrangular area of dullness is made out, beginning at sixth interspace at sternal margin; thence to anterior axillary line in seventh interspace; thence to lower border of ninth rib in anterior axillary line, and thence over to seventh costosternal articulation.

A diagnosis of heart wound was ventured, and operation decided upon at once.

Operation.—Under ether anesthesia the chest was opened by a curved incision from the fourth to the seventh ribs. A musculocutaneous flap was dissected up and turned in toward the sternum, and portions of the sixth and seventh ribs, and their costal cartilages, were resected. Upon this exposure it was found that the wound had pierced the seventh costal cartilage, and opened the pericardium and pleura. In resecting the ribs I unintentionally enlarged the pleural wound. There was such an extravasation into the tissues that it was impossible to determine whether the internal mammary or one of the intercostal arteries had been primarily injured. I tied the internal mammary. The opening in the heart sac was now enlarged, and several ounces of clot, which filled it, thus impeding its action, were evacuated. A hurried examination of the heart itself failed to reveal a wound, but in the light of the subsequent outcome I may have overlooked an injury. However, the patient's condition was such that further interference seemed dangerous, and packing was put into the pericardial wound. No attempt was made at suturing it, and the patient was returned to the ward. In two days the packing was removed, and a smaller tuck was put in. There was a considerable drainage of sero-sanguinous fluid, but the patient's general condition seemed somewhat improved. Three days later the wound was discharging freely, and the discharge, becoming purulent, tubes were put into the chest. On the 9th day, while the chart was that of a distinct empyema, the drainage was good, and the patient's appetite and strength were returning in some slight measure. This picture continued until the 18th day, when the patient died suddenly—we thought of an embolus. Unfortunately, autopsy was denied, and the exact extent of his injury, as well as the immediate cause of death, was never determined.

Correspondence.

AMERICAN FIRST AID CONFERENCE.

Dr. Joseph C. Bloodgood, Secretary, 904 N. Charles Street.

Baltimore, Md., December 29, 1915.

At the request of the American First Aid Conference, President Wilson has appointed a National Board of First Aid Standardization to deliberate carefully on first aid methods, packages and equipment, and instruction, and to recommend a standard for each to a subsequent session of the conference. The personnel of the board is as follows:

Dr. Richard H. Harte, chairman; representing the American Surgical Association, 1503 Spruce street, Philadelphia, Pa.

Assistant Surgeon-General W. C. Rucker, secretary; represent-

ing the Public Health Service, Washington, D. C.

Dr. J. Shelton Horsley, representing the American Medical Association, Richmond, Va.

Dr. John P. Kaster, representing the Association of Railroad Chief Surgeons; chief surgeon, Atchison, Topeka & Santa Fe Railroad, Topeka, Kans.

Dr. S. C. Plummer, representing the American Association of Railroad Surgeons; chief surgeon, Chicago, Rock Island & Pacific

Railway, Chicago, Ill.

Major Robert U. Patterson, representing the United States Army Medical Corps and the American Red Cross; Department of First Aid, Red Cross, Washington, D. C.

Col. Louis A. La Garde, U. S. A., retired; representing the War

Department, Washington, D. C.

Surgeon A. M. Fauntleroy, representing the Navy Department,

Washington, D. C.

To attain the objects of this movement it is essential that the board should consult the best opinion of the country on the problems involved and should enlist the sympathy and active co-operation of the medical societies. To this end a questionnaire on first aid has been sent out to the surgeons of railroads, mines, factories and physicians in industrial practice. A large number of replies have already been received. The principal National and State medical societies have been invited to appoint special first aid committees of three members each to co-operate with the Board of Standardization. The following are among those committees already appointed:

The American Surgical Association—Dr. Edward Martin of Philadelphia, Pa.; Dr. Emmet Rixford of San Francisco, Cal.;

Dr. John Bapst Blake of Boston, Mass.

The American Medical Association (Surgical Section)—Dr. F. B. Lund of Boston, Mass.; Dr. J. F. Mitchell of Washington, D. C.; Dr. J. M. Wainwright of Scranton, Pa.

The Southern States Association of Railroad Surgeons—Dr. Southgate Leigh of Norfolk, Va.; Dr. Bacon Saunders of Fort

Worth, Tex.; Dr. Ambrose McCoy of Jackson, Tenn.

Conference of Physicians in Industrial Practice—Dr. John J. Moorhead, New York city; Dr. W. Irving Clark, Worcester, Mass.; Magnus W. Alexander, West Lynn, Mass.

Medical Society of the District of Columbia—Dr. Charles S. White, Washington, D. C.; Dr. William P. Reeves, Washington,

D. C.; Dr. H. H. Kerr, Washington, D. C.

Utah State Medical Association—Dr. R. S. Joyce, Ogden, Utah; Dr. J. F. Critchlow, Salt Lake, Utah; Dr. J. W. Aird, Provo, Utah.

Summary of Results of Examination Held by the Board of Medical Examiners of Maryland, December 14, 15, 16 and 17, 1915.

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No.		Anatomy	Surgery	Pathology	Obstetrics	Practice	Chemistry	Materia Medica	Therapeutics	Physiology	Total.	Average.
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1	University of Maryland, '15	87	84	88	86	94	85	96	87	92	799	89
2	Medical College of Virginia, '14	75		61		87	58					
0	Johns Hopkins, '15	85	87	91	90	95	90	53	75	80	746	83
4	University of Maryland, '15	75	87	78	85	82	98	75	100	93	773	86
õ	University of Maryland, '11	65	65	75	68	77	75	81	91	78	675	75
6	Medical College of Virginia, '15	55	87	63	73	77	32	80	75	75	617	68
ī	Chicago College of Medicine and Surgery, '15.	50	79	70	78	81	61	76	79	65	639	71
8	College Physicians and Surgs., Balto., '15	77	93	90	93	91	78	92	85	95	794	88
9	College Physicians and Surgs., Balto., '15	61	82	81	77	67	70	95	82	85	700	78
10	Chicago College of Medicine and Surgery	75					60					
11	Howard University, '14	84	68	76	71	75	90	81	89	78	712	79
12	Harvard Medical, Boston, '15	85	90	95	93	96	100	95	94	97	845	94
13	Maryland Medical College, '13	23		75			25			55		
14	College Physicians and Surgs., Balto., '15	86	83	93	80	92	87	95	88	95	799	89
15	College Physicians and Surgs., Balto	75					60	70		75		
16	Maryland Medical College, '13			75								
17	University of Maryland, '15	55	80	78	85	80	39	80	75	78	650	72
18	College Physicians and Surgs., Balto., '14		64	69								
19	University of Maryland, '15	75	89	69	87	85	75	79	80	65	704	78
20	College Physicians and Surgs., Balto., '15	67	89	73	85	57	30	80	87	68	636	71
21	University of Maryland, '15	53	83	75	85	68	50	70	68	69	621	69
•)•)	University of Maryland	50					65	86		77		
23	University of Maryland, '15	75	82	85	85	75	70	75	85	79	711	79
24	National Medical College, Mexico, '03	77	78	72	59	42	35	30	66	49	508	56
25	Maryland Medical College, '12	62		59		64						
26	University of Maryland, '15	82	81	78	81	94	80	92	79	95	762	85
27	Maryland Medical College, '13	55	49	39	63	44	85	77	80	49	541	60
28	University of Maryland, '15	67	82	75	86	82	65	86	76	89	708	79
29	Temple University, '15	75	79	68	90	93	45	81	79	81	691	77
30	University of Maryland, '14	S3	74	90	84	79	70	88	83	94	745	83
31	College Physicians and Surgs., Balto., '15	65	88	90	96	75	50	80	61	87	692	77
32	University of Missouri	95					100	91		87		
436)	Johns Hopkins, '15	89	89	90	84	90	95	96	93	98	824	91
34	University of Maryland, '14	88	86	89	80	89	80	96	96	98	802	89
35	Johns Hopkins, '14	81	74	89	74	77	85	88	89	88	745	83
36	Howard University, '15	82	90	90	94	83	100	. 85	98	90	812	90
37	University of Maryland, '15	75	82	78	76	79	50	89	82	82	693	77
38	Medico-Chirurgical, Philadelphia, '15					Faile	ed to	appea	ar.			
39	University of Maryland	75					75	84		S:3		
40	Maryland Medical College, '10					Faile		appe				
41	Howard University, '14	81	75	81	91	76	65	83	80	79	711	79
42	University of Maryland, '14	75		75	SS				:.	75		
43	University of Louisville, '12	65					45					
41	Johns Hopkins	84					78	83		82		
45	Johns Hopkins, '15	86	90	91	80	SS	90	88	90	83	786	87
46	College Physicians and Surgs., Balto., '14			72	.,		50		88	76		
47	College Physicians and Surgs., Balto., '13	81	90	76	90	87	85	. 72	89	97	767	85
48	University of Maryland, '15			80 -	87		80	82	75			
49	University of Virginia, '14	83	88	94	76	75	80	90	100	100	786	87
50	Johns Hopkins, '15	84	86	78	73	89	90	88	75	93	756	84
51	Bennett Medical College, '14	45		71		58	10					
52	University of Maryland, '15	49	75	75	75	57	45	81	78	75	610	68
53		81	74	75	81	75	63	87	87	98	721	80
	J											

In the above summary an average of 75 is required of those participating in the examination for the first time in order to secure a license. Those who have failed are eligible to re-examination at the expiration of six months. They are then obliged to receive a rating of 75 in each branch in which they are re-examined before license can be issued. Under the Maryland laws, students who, at the end of their second year, have successfully passed their college examination in Anatomy, Chemistry, Materia Medica and Physiology, are entitled to examination by the Board of Medical Examiners in these branches. The ratings made by these students in the examination known as the "second-year examination" are carried forward and made part of the final examination, when an average of 75 must be obtained to secure a license. We trust that this statement will make clear the apparently incomplete examination of certain participants.

REPORT OF BOARD OF MEDICAL EXAMINERS OF MARYLAND.

QUESTIONS AT THE DECEMBER (1915) EXAMINATIONS.

ANATOMY.

- I. Describe upper third of humerus, including attachments of muscles.
- 2. Describe the temporo-maxillary articulation.
 - 3. Describe the internal jugular vein.
 - 4. Describe the lachrymal apparatus.
 - 5. Describe the renal blood circulation.
- 6. Describe the pyloric orifice of the stomach.
 - 7. Locate and describe Peyer's glands.
- 8. Give origin, insertion and nerve supply of following muscles: Rectus abdominalis, masseter, gluteus maximus and plantaris.
- 9. What is composition of intervertebral discs? How much of spinal column is formed by these discs?
- 10. Superficial and deep origin, course and distribution of the eighth nerve.

THERAPEUTICS.

- 1. Give the physiological action and therapy of sulphonal.
- 2. Give the physiological action and therapy of strophanthus.
- 3. State the medicinal and dietetic uses of saccharum.
- 4. Give the indications and the contraindications for the use of chloride of sodium.
- 5. Write a prescription in Latin, without abbreviation, containing four ingredients, one of which is tartras antimonii et potasssii, stating condition for which it is to be used, with directions for administration.
- 6. Give the therapy of kali iodide and best method of administration.
- 7. Define and illustrate pharmaceutical and chemical incompatibility.
- 8. What similarity is there between morphia and apomorphia? Give the therapy of the latter, how preferably administered and for what special purpose.
 - 9. Urotropin, its therapy?
- to. Guiacol, therapy and prescribe form of administration.

MATERIA MEDICA.

- 1. (a) Tetanus antitoxin. Its preparation and dose. (b) Dicuss typhoid vaccine with reference to its preparation, doses and administration.
- 2. (a) Write a prescription containing nitrate of silver to be used in infant's eye. (b) Write a prescription for ten powders for a child

two years old. The prescription to contain calomel, soda bicarb. and ipecac.

- 3. Digitalis. Its preparations and doses and incompatibles.
- 4. What is an alkaloid? Name the alkaloids of nux vomica and give average dose of each for an adult.
- 5. (a) Give a rule for the calculation of the average dose of medicine for a child based upon a given dose for an adult. Give example for a child four years old. (b) State also what circumstances modify the effect of drugs.
- 6. Define and give examples of the following classes of drugs: Mydriatics, myotics, emmenagogues, and hemostatics.
- 7. Give source of opium, quinine, iodine and pepsin.
- 8. Sodium. The official preparations and doses.
- 9. Name some of the general classes into which medicines are divided and give two examples of each.
- 10. Give the average adult dose of salol, salicylate of sodium, tincture of aconite, Fowler's solution of arsenic and Donovan's solution.

PHYSIOLOGY.

- I. (a) Describe the origin of the various constituents of the blood. (b) Where are the red corpuscles of the blood supposed to be destroyed? (c) How do the white corpuscles compare in number with the red? (d) Give some of the causes for an increase or decrease of the white corpuscles.
- 2. (a) What is meant by the pulse? (b) What three factors are concerned in the production of the pulse? (c) What conditions may alter the pulse rate?
- 3. (a) What post-mortem test should be applied to prove that air has entered the lung of a supposedly stillborn child? (b) Give method of producing artificial respiration.
- 4. Describe the digestion, absorption and disposition of fats.
- 5. (a) Of what does the nervous system consist? (b) Describe the reflex and automatic action of the nervous centers.
- 6. Discuss the difference between cold-blooded and warm-blooded animals.
 - 7. Describe ovulation.
 - 8. Describe succus entericus.
- 9. State what changes take place in the air in respiration.

IO. What are the requirements of a normal diet?

PATHOLOGY.

- I. What is diphtheria antitoxin? How made?
- 2. What is anti-typhoid vaccine? made?
- 3. Contrast the reactions of the above-mentioned agents when used.
- 4. Trace the development of acute general miliary tuberculosis.
- 5. Describe the process of resolution in lobar pneumonia.
- 6. Tell what you know of cerebral embol- . of stone in the kidney. What is Dietl's crisis? ism. Its causes and effects.
- 7. Why and when does a lymph node adjacent to an infected area become swollen and painful?
- 8. Give the morbid anatomy of an irritable anal ulcer.
- 9. Describe the changes occurring in the knee in a case of acute traumatic synovitis.
- 10. Describe the changes that occur in a case of freezing; for instance, a frozen foot.

PRACTICE OF MEDICINE.

- I. Give symptoms and treatment of multiple sclerosis
- 2. Define: (a) Kernig's sign. (b) State what disease it ocurs in and what symptoms would lead you to suspect the existence of this sign. (c) Ulcerative stomatitis. State what remedy is the specific for this disease.
- 3. Define: (a) Landry's paralysis (b) State what marked symptoms accompany this disease and what is the prognosis. (c) Dysphagia. Name some diseases in which it occurs.
- 4. Differentiate: (a) Tonic and clonic spasms. (b) Sibilant and sonorous rales. (c) Define Babinski's sign. In what diseases does it occur?
- 5. Differentiate follicular tonsilitis and diphtheria.
- 6. Name day of eruption in smallpox, chicken-pox, measles and scarlet fever.
- 7. Being called to see a case of pulmonary tuberculosis in its early stages, by what symptoms would you diagnose the case and what measures would you employ?
- 8. Give diagnosis of pellagra and treatment of same.
- 9. Differentiate hepatic, intestinal and renal colic.
- 10. Give prophylactic treatment of wounds which might lead to tetanus and give treatment of same if it does develop.

SURGERY.

- I. Name the various forms of plastic iritis. Give symptoms and treatment of one form.
- 2. What inflammatory conditions may arise in the right iliac region, with symptoms of each.

- 3. Give symptoms, diagnosis and treatment of tuberculous disease of the hip joint.
- 4. What surgical conditions occur in the neck? Give symptoms and diagnosis of the commonest form.
- 5. Name the varieties of fracture about the elbow joint. How would you treat them and why?
- 6. What are the causes and symptoms of intestinal obstruction?
- 7. Give symptoms, diagnosis and treatment of carcinoma of the rectum.
- 8. What are the indications for removal of the mammary gland?
- 9. Give symptoms, diagnosis and treatment
- 10. Called to attend a patient who is suffering from a troublesome epistaxis, describe the methods you would pursue to check it.

OBSTETRICS

- I. Give diagnosis and treatment of placenta prævia at term.
- 2. Describe three methods of resuscitating a child born in a state of asphyxia.
- 3. Give the Wiegand-Martin method of delivering the head in a breech presentation.
- 4. Describe fully how you care for a child from the moment it is born until the cord is cut.
 - 5. Give signs and symptoms of fetal death.
 - 6. Give treatment of uterine inertia.
- 7. Give Crede's method of preventing ophthalmia neonatorum.
- 8. How would you check a severe hemorrhage immediately after delivery of the placenta?
- 9. Describe accurately how you would do a curettement.
- 10. Give differential diagnosis between sapremia and septicemia in puerperal fever.

CHEMISTRY.

- I. Mention two examples of the following classes of elements: Univalent, bivalent, guadrivalent.
- 2. Describe two methods of obtaining hydrogen.
- 3. Distinguish between sulphides, sulphates and sulphites.
- 4. What are the allotropic modifications of sulphur?
- 5. What two oxides of phosphorus are known? Give formulæ.
- 6. What is a simple and what is a compound ether?
- 7. What atomic group is characteristic of the organic acids and what is it called?
- 8. What form of sugar sometimes occurs in urine? How is it detected and estimated quantitatively?
- 9. What is acetone and what is diacetic acid? How are they detected in urine?
- 10. Describe method of testing for blood in the stomach or intestinal contents.

MARYLAND MEDICAL JOURNAL

NATHAN WINSLOW, M.D., Editor.

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BALTIMORE, FEBRUARY, 1916

DIET IN NEPHRITIS.

During the past few years there has been a craze permeating the internist in the treatment of nephritis by diet. It seems that with every new suggestion in medicine the innovation is for a time being run into the ground. Thus, at one time, when a woman's abdomen was opened, her ovaries, if a little bit diseased, were removed without the least thought of the consequences resulting therefrom. And now for some few years there has been a wild route of the surgical end of the profession to plate fracture. Thus it has been, and possibly ever will be, both in medicine and surgery a sort of blind follow my leader. In nephritis this has taken the form of dieting, especially the limiting of the protein intake. Doubtlessly in some instances, more from blind luck than from scientific grounds, patients suffering from this or that form of nephritis have been benefitted by dieting. However, in nephritis, as in other conditions affecting the human engine, the physician should look upon the individual as a case unto himself, rather than an example of a group. Here as elsewhere the old maxim applies, "What is food for one, is poison for another." No hard and fast lines can be laid down, no stereotyped treatment is available, but only after careful consideration and painstaking investigation is the physician justified in outlining the dietary of these patients. Cadis Phipps of Boston is undoubtedly on the right tack when he states, in the Boston Medical and Surgical Journal, that we have fallen perhaps too much into the habit of thinking of diet in terms of calories, forgetting the variations and idiosyncrasies of different individuals. Indeed, we are too much impressed with the dis-

ease and so neglect the patient. And also, with all our precision, it is well to hesitate and stop, as it may be that our system of dietetics is but half the truth, and that further research will change many of its apparently basic principles. Upon the surface one would suppose that a kidney getting rid of a very small amount of protein should be fed no more than the kidney is caring for. Investigators at first worked upon this principle, but after some success and some failure, came justly to the conclusions that there were other forces at play than the kidney, that in some instances the limiting of the protein intake to the amount of protein elimination did not succeed in benefitting the condition of the patient. they were forced to the conclusion that vital forces are different from mechanical forces, and that there is no rule applicable to every nephritic when it comes to limiting this or that element of the dietary. Without being able to explain they have been forced to the conclusion that in some cases of protein retention it is better not to limit the proteid intake too strictly, else the patient will go to pieces. Doctor C. W. McElfresh of Baltimore has done a great amount of pioneer work in diet in nephritis. In the beginning of his investigations, which have now extended over a period of more than five years, he paid rigid attention to the number of calories allowed nephritics, also the kind and quantity of food permitted. Gradually he has come to the conviction that too much attention must not be paid to the nitrogen retention. By limiting the protein ingestion in some cases he has noted remarkable improvement in the health of the patient, but other patients with the same general plan of treatment have failed to respond. In this class of nephritics he has found that by allowing a more liberal protein diet produces better results. His experience substantiates that of Phipps, namely, that any rigorous system of diet may, but should not, be so strict or continued so long that it may be distinctly harmful to the individual case. In his hands, as in Phipps, more freedom in the allowance of protein than is recommended in the text-book nephritic diet may be of great advantage in the individual case. Therefore we are forced to the conclusion that modern investigators are on the right path in treating nephritis principally by taking the load off the kidney by proper dieting; we are also of the opinion that much more work must be done before dieting in nephritics has been placed on a sound basis. *

Medical Items.

Dr. Arthur de Talma Valk, formerly of Annapolis, Md., is a member of the surgical staff of the Twin City Hospital, Winston-Salem, North Carolina.

Dr. Roy D. McClure, resident surgeon at Johns Hopkins Hospital, and once associated with Dr. Alexis Carrel, surgeon, has been made surgeon-in-chief to the new Henry Ford Hospital, in Detroit. He will leave Baltimore about March I.

Dr. McClure's appointment makes the second from the Hopkins staff to the Detroit institution in the last two months. Dr. Frederick Janney Smith, assistant resident physician at Hopkins, was appointed in November as physician-in-chief at the Ford Hospital. About a year ago three other Hopkins men were named for positions on the staff, and Dr. Frank J. Sladen as advisor to Mr. Ford.

Dr. William H. Bash, accident physician of Mercy Hospital, has been reappointed. He has served more than a year in that capacity at the hospital, and, according to his associates, has made an enviable record. He recently resigned, but was prevailed upon to return to his old place.

DR. WILLIAM H. WELCH of the faculty of the Johns Hopkins University arrived in Baltimore on January 5, after a six months' trip to the Orient. He sailed from Shanghai December 11.

Dr. Karl H. Van Norman, formerly of the staff of the Johns Hopkins Hospital, and now a captain in the Royal Canadian Army Medical Corps, is in charge of a British hospital division at Ramsgate, England. There are 600 beds in the hospital, and Dr. Van Norman has medical supervision of over 125 patients, all war victims.

Dr. C. Reid Edwards has been appointed superintendent and Dr. Louis A. Buie resident surgeon of the Kernan Home for Crippled Children.

DR. CHARLES A. OVERMAN, who has been ill at the University Hospital for several months, is reported to be convalescent.

Two important changes in the hospital staff of the Johns Hopkins Hospital have been announced. The resignation of Dr. Leonard G. Rowntree, associate professor of medicine, was accepted, and the appointment of Dr. Lysander P. Holmes of the Health Department of New York City as third assistant superintendent was given out. Dr. Rowntree has been appointed professor of medicine at the University of Minnesota. The appointment of Dr. Holmes is to fill the vacancy which was caused by the resignation of Dr. Karl H. Van Norman, first assistant superintendent, about two months ago. Dr. Ralph B. Seem, second assistant, was promoted to Dr. Van Norman's position, and Dr. Lewis A. Sexton, third assistant, was put in Dr. Seem's place. Dr. Holmes comes from the Riverside Hospital, North Brother's Island, New York, which is operated by the Health Department of New York.

In a struggle recently with a violently insane patient, Dr. William J. Coleman, superintendent of the University Hospital, fractured and dislocated his finger.

Dr. Martin F. Sloan, medical superintendent of the Eudowood Sanatorium at Towson, has returned from a trip to California and through the South.

DR. WILLIAM J. TODD, who has been medical advisor to both the faculty and students of Mt. St. Agnes' College at Mt. Washington for the past 25 years, has been presented with a silver chocolate service.

Dr. Christopher C. Wingo celebrated his ninety-second birthday recently at his home in Baltimore.

Dr. Charles E. Fox, who was formerly connected with the Maryland State Board of Health, concerning whose welfare in Serbia there were many rumors, is safe in Uskub, where he is a member of the American Sanitary Commission that left Saloniki, Greece, after completing a campaign against typhus.

The American Orthopedic Association announces the appointment of Dr. Mark H. Rogers, Boston, as editor of *The American Journal of Orthopedic Surgery*, the only periodical in the English language devoted to orthopedics. This journal, which has now completed 13 volumes as a quarterly publication, will henceforth be issued monthly, the first number in the new form being that of January, 1916.

The office of publication has been transferred

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DISEASES OF THE RECTUM.*

By Harold Edmund Dunne, M.D., Washington, D. C.

Mr. President, Members of the
Prince George's County Medical Society:

At the request of your secretary, Dr. McMillan, I have the honor to read to you today a short paper on Diseases of the Rectum. I have chosen for a theme the examination of patients and the diagnosis of conditions. It is my desire to give you something of interest and real practical value in this much-neglected line of thought.

Very few of the medical colleges of the country give a separate or special course of instruction on the subject of rectal diseases. A few lectures from the Chair of Surgery are usually all that the majority of medical students receive. "To tie off a pile and insert a grooved director through a fistulous tract, severing the intervening tissues with one sweep of the knife" is frequently about all students remember of this subject. This is unfortunate for the doctor and more so for suffering humanity, but a Godsend to the charlatan and the long array of pile cures that meet us through the advertising pages of our daily literature.

Most physicians have neither the time nor special knowledge and experience necessary to successfully treat diseases of the rectum. The demands on the general practitioner are so numerous and varied that it is difficult to keep regular office appointments with patients of this class. Positive punctuality on the part of both physician and patient is one of the essentials to the successful outcome of these cases, essential to the physician so that he can treat the patient sufficiently often and essential to the patient because if disappointed many times by the physician, owing to emergency or confinement cases, he loses interest and ceases to call. Nevertheless, from the standpoint of examination and diagnosis, the general practitioner, in many instances, can render valuable assistance to the rectal sufferer by a careful examination and an accurate diagnosis. By such means the farseeing physician will

^{*}Read, by invitation, before the Prince George County Medical Society of Maryland, October 9, 1915.

retain the confidence of these patients and prevent them from drifting into the hands of quacks or patent medicine promoters.

We now come to the technique of examination. First of all, let me say that if the examination is going to be painful and nerveracking to the patient it better be deferred. One experience of this kind is often the last, and the patient either continues to endure or seeks advice elsewhere. Posture is another important factor. It is better not to put your patients, especially women, in the knee-chest position. It is humiliating and unnecessary in the great majority of cases. The Sims position answers all requirements from the standpoint of examiner, and is eminently more satisfactory to the patient. The preliminary to all examination technique should be, of course, a complete case history. Following this, external inspection of the anal and peri-anal regions is made. Here one may diagnosticate hypertrophied cutaneous skin folds (the so-called external piles); the thickened, macerated condition of the peri-anal skin will suggest pruritus, with its many causes: condylomata may be in evidence; the openings of a fistulous tract. a thrombotic hemorrhoid (which has been humorously termed rectal apoplexy); scars or keloid formations showing the handwork of some other protologic artist may greet your eyes, and I might say that I have had the fortune or misfortune to see some wonderful pictures. Eversions of the rectal mucosa, prolapsus recti, fissures, protruding internal hemorrhoids, with or without peri-anal edema; an occasional polypus held in the grasp of the sphincter, dilatation of the peri-anal veins; tubercular ulceration, superficial, subtegumentary and ischio-rectal abscesses; a possible sinus at the sacro-coccygeal articulation. These are the principal conditions that can be made out by external inspection. I might add that the presence of an abundance of long, fine, silky hair about the anus is significant of a serious constitutional or malignant condition. The absence of the puckered or wrinkled folds of the anal skin, in other words, a smooth, rather patulous anus, is frequently the very first symptom of locomotor ataxia.

External palpation will then elicit the presence or absence of indurations, and right here let me say, gentlemen, "watchful waiting" is a poor policy. It is more, it is a dangerous policy to follow when dealing with abscess in this region of the body. Fluctuation of pus, except in the most superficial infections, is rarely obtained in this portion of the human anatomy. The loose cellular tissues, the fat accumulations and tough integument make rapid extension of pus, and consequently extension of infection, or complications, the usual rule. Early incision, with due regard for anatomical relationships, thorough drainage and subsequent dressings, is the

rational treatment of these cases.

Contrary to many surgical authorities, I will say that abscesses in this region, properly opened and properly dressed, do not result in fistula. Furthermore, where the integrity of the sphincter muscles is not involved, the severance of these muscles in the treatment of abscess is seldom necessary. External palpation will often

show the direction of a fistulous tract, and the condition of the external sphincter, whether contracted, quiescent or patulous.

Next we come to the internal examination of the rectum, and right here let me say it is never advisable to use a bivalve speculum unless your patient is under a general anesthetic; that is, if you want to retain the respect of your patient and the continuance of your daily administrations. The mechanism of a painless rectal examination with a speculum lies in the displacement of the sphincter in all directions equally at the same time, and this is best done with one of the various tubular specula or proctoscopes on the market. Internal hemorrhoids, polypi, the internal openings of fistulae, acute or chronic inflammatory conditions of the rectal mucosa, foreign bodies, degrees of prolapsus, stricture; abnormal growths, malignant and benign; the presence of free pus or blood within the rectum, chancre and capillary hemorrhoids can be seen and verified.

As a preliminary to all instrumental examination of the rectum, a careful exploration with the lubricated finger is an absolute rule. Internal hemorrhoids that have undergone fibrous changes can be felt, openings of fistulae, polypi, foreign bodies, strictures within reach, sphincteric irritability and hypertrophy, ballooning of the rectal cavity, fecal impaction, abnormal growths, prostatic enlargement, displaced uteri and other gynecological conditions, a deformed or sensitive coccyx, submucous collections of pus, pelvirectal and retro-rectal abscesses can all be determined by the educated finger.

By means of the air dilating type of proctoscope, electrically illuminated, the rectal valves, ampulla and the sigmoid cavity can be inspected and treated. The proctoscopic limit of examination

in the normal subject is about the apex of the sigmoid.

I am very much opposed to the various colonoscopes now in the market. They are both dangerous and unnecessary. If a patient's sigmoid or colon is diseased it is unsafe to insert such an affair, as puncture of the intestine is an easy matter in such cases. Peritonitis—a laparotomy or death, or all of these—may be the result of such a hazardous procedure. On the other hand, if the sigmoid and colon are in a healthy, resistant condition there is no need for the insertion of this formidable instrument. Therefore, I see no use for it, and recommend the discontinuance of its manufacture, not only as a measure of safety to present and future generations, but as an economy of the recent graduate's meagre supply of outfit money.

There is another rectal fallacy that I would like to mention this afternoon, and that is the much-used rectal tube. It is impossible to pass a rubber rectal tube into the colon of a normal human being. After its apparently successful introduction, insert a finger alongside of it and you will find it nicely coiled up like a snake in the rectal pouch. Radiographs have demonstrated the failure of the rectal tube in many experiments. There is an especially pernicious tube that has recently appeared on the market. This is reinforced

with metal like the tubing of an auto horn. With a weapon of this kind a tremendous amount of damage can be done at one end if there is a specially energetic nurse at the other who is going to

give it "high" at any cost.

By simple gravity, the douche bag low down, an ordinary rectal tip a couple of inches within the rectum, the patient lying on the left side with hips elevated, fluid will just naturally run up the descending colon, and then, by a change of position to the right side, the patient will soon feel the gurgling and weight of the fluid in the ascending colon. One quart of any fluid is considered the limit of positive safety in the majority of adults, except, of course, in the presence of contraindications—for example, typhoid fever —and then less is used.

Another thing against which I wish to place myself on record is the Whitehead operation for hemorrhoids. I consider this nothing less than a surgical mutilation, frequently attended with dire consequences. To wear a napkin for the rest of one's days, or to be blessed with an incurable stricture, or an intolerable pruritus, is a poor exchange for a few piles. Conservative methods, scientifically applied, frequently render operative procedures unnecessary. Conservation (excepting the devastating conflict now raging in Europe) is the keynote of the present century.

In closing, let me say, as a general axiom, there are more things in medicine missed by not looking than by not knowing. Observation is half the battle. Bring your diagnosis down to an ocular demonstration whenever possible, and especially in diseases of the

rectum.

NATHAN SMITH, NATHAN R. SMITH AND ALAN P. SMITH—A MEDICAL FAMILY.*

By Henry M. Hurd, M.D.

As peculiarly appropriate in a gathering of Baltimore physicians, to whom the name of Nathan R. Smith is a familiar one, I have been asked to give a brief account of the memoir of Nathan Smith recently written by Mrs. Alan P. Smith and published by the Yale Press, and to add some facts in reference to his son, Nathan R. Smith, and his grandson, Alan P. Smith. The memoir as originally written contained sketches of the lives of these three men, and it was hoped that its publication might appeal to the three institutions which were individually interested—the Medical School of Yale University, which Nathan Smith founded; the University of Maryland, where Nathan Ryno Smith, his son, and Alan P. Smith, his grandson, did their life work, and the Johns Hopkins Hospital and University, in both

 $^{^{\}circ}{\rm Abstract}$ of a paper presented by Dr. H. M. Hurd at the meeting of the Book and Journal Club, January 18, 1916.

of which institutions Alan P. Smith was a faithful trustee and valued adviser. If the work had been properly presented to these three foundations there is every reason to think that it might eventually have been published in this manner; but the clebration of the hundredth anniversary of the founding of the Yale Medical School, in 1914, suggested the wisdom of making an immediate appeal to the Yale Press; and as this proved successful only as far as the volume related to Nathan Smith, it was deemed advisable to limit the publication to his life. The material relating to Nathan R. Smith and Alan P. Smith remains unpublished, but I am not without hope that the friends of the two remaining institutions may undertake its publication jointly.

Nathan Smith came of good English stock, and was born at Rehoboth, Mass., in 1762. His father afterward removed to a farm at Chester, Vt., where Nathan grew up with only the scanty opportunities for an education afforded by a pioneer country. The first record we get of him was his service in the Vermont Militia, when he was called out to protect the inhabitants from the Indians. Later he taught in a district school, and while thus employed he was called upon to assist Dr. Goodhue, a noted Vermont surgeon of the time, in the amputation of a leg. He was so much interested in the operation that he applied to Dr. Goodhue to be taken on as a medical student, but was sensibly advised to go home and study more, or until he was qualified to enter the freshman class at Harvard. He spent a year or more in study with a clergyman at Rockingham, Vt., and at the age of twenty-two went to Dr. Goodhue at Putney, Vt., and remained his office student for the following three years. In 1787—at the age of twenty-five—without any other medical instruction, he went to Cornish, N. H., and established himself in practice. Here he remained two years, and then went to Cambridge, where, in the Harvard Medical School, he attended the lectures of Dr. John Warren in Surgery, Dr. Aaron Dexter in Chemistry and Materia Medica, and Dr. Benjamin Waterhouse in Medicine. In 1700 he received the degree of M.B. With his diploma he returned to Cornish. In 1796—after failing to secure the establishment of a professorship of medicine in connection with Dartmouth College—he arranged to go abroad to study at the University of Edinburgh. He was obliged to exercise the stritctest economy in order to make the journey, and even then upon borrowed money. He seems to have been a diligent student in Edinburgh, and after spending three months in London he returned home to Cornish in September, 1797. In the same autumn he delivered a course of lectures at Dartmouth as professor of medicine, although he was not appointed until the following year. In August, 1798, two of his students received the degree of M.B., and the degree of A.M. was at the same time conferred upon himself.

The interest excited by his instruction in this new department

is illustrated by an anecdote related by a gentleman who was an undergraduate in the college:

"President Wheelock came from Dr. Smith's lecture-room to evening prayers in the old chapel, and gave thanks in substance as follows: 'Oh, Lord! we thank Thee for the oxygen gas; we thank Thee for the hydrogen gas; and for all the gases. We thank Thee for the cerebrum; we thank Thee for the cerebellum, and for the medulla oblongata."

Before many years a commodious building was erected for the Medical School, which is still in existence. In the year 1812 Dr. Smith decided to go to New Haven to establish a medical school in connection with Yale College. The school opened in October, 1813, with a class of thirty students. In 1820 he became connected with the Medical School at Brunswick, Me., in connection with Bowdoin College, where he delivered various lectures to a class of twenty-one students; but within a few years, we are informed in the Memoir, the class had increased to nearly a hundred. He also, when his son, Dr. Nathan R. Smith, became connected with the Medical School at Burlington, Vt., visited the school and delivered courses of lectures there. Very soon, however, he gave up these outside duties and concentrated his work at New Haven, where he seems to have been extremely successful. He died in 1829.

His remarkable contribution to Medicine was his method of treating typhoid fever by cold affusions. His greatest contribution to Surgery was unquestionably his "Pathology and Treatment of Necrosis." He seems to have published but little, but his writings were always clear and to the point, and his article on typhus (our typhoid) fever can be read to great advantage

at the present time.

Dr. Nathan Smith had four sons—David Solon Chase Hall, Nathan Ryno, James Morven and John Derby-all of whom studied Medicine. Nathan Ryno Smith, with whom we are particularly interested, was born in 1707 and spent most of his professional life in Baltimore. He was at first Professor of Surgery at the University of Vermont; later, for two years, Professor of Anatomy at Jefferson Medical College, and then Professor of Surgery at the University of Maryland, with the exception of three years, 1837-1840, when he was Professor of Surgery at Transylvania University. He was pre-eminently a surgeon—noted for his skill, and kindness of heart. He engaged, however, in the general practice of Medicine and was also an oculist. His inaugural thesis at the time of his graduation in Medicine shows much of the modern spirit of medical investigation. He was especially noted in Baltimore for his subcutaneous section of the tendo Achillis, and also for his invention of a lithotome, which he used in two hundred and fifty operations for stone in the bladder; and for his anterior splint. He died in 1877, at the age of eighty years.

Dr. Alan P. Smith, the son of Nathan R. Smith and grandson-

of Nathan Smith, was born in 1840 and died in 1898. Although an excellent surgeon, he was also a physician and had a large general practice. He filled for a short time the chair of operative surgery at the University of Maryland. He was one of the incorporators of the Johns Hopkins University and a trustee of the University and Hospital. He was offered the position of surgeon-in-chief of the Johns Hopkins Hospital, but declined it. He was gentle, kind-hearted, sympathetic, and thoroughly interested in all that concerned the improvement of medical education. After a long illness he died at the comparatively early age of fifty-eight years.

A memoir of Nathan R. Smith and of Alan P. Smith should

be prepared and published, to do them deserved honor.

ACUTE ABDOMINAL PAIN.*

By Robert Parke Bay, M.D.

In selecting this subject I did not do so with the idea of telling you all about it, for it is something which, if you will agree with me, we all need to keep before us constantly—and then only to find out how little we really know about what is going on within the abdominal cavity. I shall endeavor to emphasize a few practical points which I have observed from my own cases.

As you know, there are about thirty different conditions that may give rise to acute abdominal pain. Someone will no doubt say that, if we will believe what he says, there is no such thing as old-time bellyache; and if I can get you all to believe that when it does exist is in the minority, and should never be diagnosed until the other more dangerous conditions have been eliminated, I will consider it well worth my time. How many of you have seen cases that at first looked typical of acute indigestion—which, however, is only a symptom and not a disease—go on into a general peritonitis, and, if your patient got well was laid up for months probably because you did not go back the next morning, and if you did you never noticed his abdomen, and because his pain was better considered him improved, having ordered a large dose of castor oil or salts on your first visit?

Some of the conditions that cause acute abdominal pain are: First, appendicitis; second, gall bladder diseases; third, perforating ulcer of the stomach or duodenum; fourth, intestinal obstruction; fifth, kidney stones or diseases; sixth, salpingitis; seventh, twisted ovarian cyst; eighth, ectopic pregnancy; ninth, fibroids of the uterus; tenth, adhesions; eleventh, pneumonia.

Of these conditions diseases of the appendix have first place and, according to Dr. Douglas Vander Hoof, thirty-eight per cent.

^{*}Read before the Kent County Medical Society, Love Point, Md.

of all cases of indigestion are the result of inflammation of the appendix or gall bladder. The first attack of appendicitis, or the first acute pain in the abdomen, the result of appendicitis, starts in the upper abdomen, described by the patient as the pit of the stomach. This is followed by a general abdominal pain, and it is not until from twelve to twenty-four hours that the appendix becomes stuck in the right iliac fossa—and we have localized pain, tenderness, and rigidity over McBurney's point. It will be noticed that this is a movable pain. The first symptoms might very well be symptoms of any of the above conditions, so you can readily see how important the first twelve to twenty-four hours are to your patient; and it is here that history plays such an important part.

I do not feel that nausea, vomiting, diarrhœa, constipation or temperature are of especial importance in arriving at an early diagnosis. The onset, location, duration, character, and history of the pain, along with the pulse and abdominal examination, are far more important. Fever is the most misleading of all the symptoms, as it may be normal or sub-normal in the most serious

conditions, especially at the onset.

During the past few months I have had some striking examples of a serious condition being overlooked because the acute abdominal pain was not typical of any one disease. The following examples will illustrate this:

First—Left-sided ectopic pregnancy diagnosed first as acute indigestion and later appendicitis thirty-six hours before operation.

Second—Perforated gastric ulcer of seventy-two hours' duration, not diagnosed because the pain was in the epigastric region and not accompanied by fever or local symptoms until twenty-four hours had elapsed.

Third—Large infected kidney diagnosed appendicitis for the first forty-eight hours before the local symptoms became more pronounced. In this case we had high fever and abdominal distention, with sudden onset of pain.

Fourth—Acute lobar pneumonia referred with diagnosis of acute appendicitis, with pain, fever, muscular rigidity, increased respiration, with physical signs not present for twenty-four hours.

Fifth—Ptomaine poisoning treated for thirty-six hours in several cases and they all entered the hospital with a ruptured appendix and peritonitis.

Sixth—Typhoid fever with enlarged gland frequently starts with acute abdominal pain. On three occasions have I opened the abdomen and removed a mildly inflamed appendix, and the case contained a typical typhoid—and this after all the scientific laboratory findings had confirmed our diagnosis of acute appendicitis.

Seventh—Typhoid perforation diagnosed acute appendicitis. The patient walked into the hospital; was operated upon immedi-

ately; perforation found, and patient made good recovery. The operation took place four hours after the onset of pain.

Eighth—Twisted ovarian cysts. These are very frequent in young women, and in the majority of cases are diagnosed appendicitis from the acute onset and location of pain.

Ninth—Dermoid cysts of the ovary become infected and give rise to acute pain. The pain is frequently referred to the crest of the ilium and down the thigh. One case opened through the sciatic foramen and formed an abcess on the posterior surface of the thigh; diagnosed sciatica.

Tenth—Intestinal obstruction frequently overlooked until it is too late, as the symptoms are not so severe at the onset and seldom accompanied by fever, but always by an irregular distention of the abdomen.

Eleventh—Gastric ulcer overlooked for some months, and patient frequently operated on for gall stones which were not found, only to continue having attacks of pain until perforation took place.

Twelfth—Gall-stones with infected gall-bladder usually recognized, as the acute pain is at the seat of trouble.

In considering these conditions I am endeavoring to show how important it is to make a definite diagnosis in the short time at your disposal, as you know it is necessary to deal promptly with any one of the above conditions. It has been said that every pain has its distinct and pregnant significance if we will but carefully search for it. As Dr. Maurice Richardson has said: "Alone, pain indicates danger in general; in combination with other signs it indicates danger in particular, and guides our hands to its source."

While I believe in all the improved laboratory methods and scientific interpretations of pain, let us not discard the old, well-recognized symptoms—as the coated tongue, pulse-tone and color of the conjunctiva; conditions with which you are familiar, and which cheeses the contract the contr

which should be taught more at the present day.

In conclusion, let me repeat: consider acute abdominal pain as serious until you have proved it otherwise. Do not give cathartics in this condition until you are sure no inflammatory process exists. You may give small enemas, and quiet your peristalsis by ice or heat; give absolutely nothing by mouth, and elevate your patient's head. If you must do something, give Murphy's proctoclysis, and a small dose of morphia (one-twelfth of a grain) may localize your pain. I feel that far more good can be accomplished by lessening the peristalsis than harm by lessening the pain. Always there is danger in delay—and that which ye sow ye shall also reap.

1800 N. Charles Street.

THE TREATMENT OF FRACTURES OF THE LOWER END OF THE TIBIA AND FIBULA.

By Walter D. Wise, M.D., F.A.C.S.

Associate Professor of Surgery, University of Maryland and College of Physicians and Surgeons, Baltimore, Md.

During the eight years, 1908-1915, inclusive. Dr. Harrison and the speaker treated in our general work at the office and at Mercy Hospital 1959 fractured bones. Of these, 150 were of the leg and 51 were of the type usually designated Pott's fracture. The habit of describing practically all fractures about the ankle as Pott's fractures has of late years been more or less accepted, and has even found its way into the textbooks. We believe this to be a serious mistake, as it leads to errors of treatment and much misunderstanding.

Our series, more strictly divided, shows 10 fractures of the internal malleolus alone; 16 of the external malleolus alone and 25 cases of true Pott's. These percentages are not at great variance with those of any large series reported, as, for example, the sta-

tistics of the Hudson Street Hospital, New York city.

Fractures of the lower end of the fibula alone or of the internal malleolus alone are in most cases rather easily managed, but if either is complicated by a tearing of the opposite lateral ligament or the tibio-fibula ligaments it becomes much more grave, because of the danger of partial dislocation and spreading of the ankle.

The fracture complex described by Percival Pott consisted of a fracture of the fibula in the lower three inches, a rupture of the internal lateral ligament and outward displacement of the foot. The X-ray has shown us that in a large proportion of cases, instead of the internal lateral ligament rupturing, the internal malleolus is pulled off.

A most important part of the pathology, not described by Pott and not mentioned in some standard works, is rupture of the tibiofibular ligaments, allowing separation of the lower ends of the tibia and fibula, and if not properly treated leading to serious widening

of the ankle.

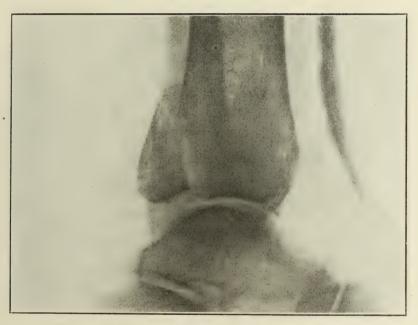
In a true Pott's fracture there is danger of dislocation forward, backward and outward—no danger of the inward variety. In cases where the fibula is broken at the level of the ankle joint and the rest of the pathology is that of a Pott's, there is danger of dislocation in any of the four directions. If there is uncorrected inward dislocation it is perhaps less likely to give spreading of the ankle than is the outward variety, but gives an ugly deformity and considerable disability. If the dislocation is outward and not corrected, it will increase as soon as weight is placed upon the foot and will result in a valgus deformity with flat foot. An uncorrected forward displacement prevents dorsal flexion and the pa-



(1) Showing a moderate amount of anterior displacement associated with an oblique fracture of the tibia and a fracture of the tibula.



(2) Showing a marked posterior displacement of the foot with a large fragment broken from the posterior margin of the articular surface of the tibia.



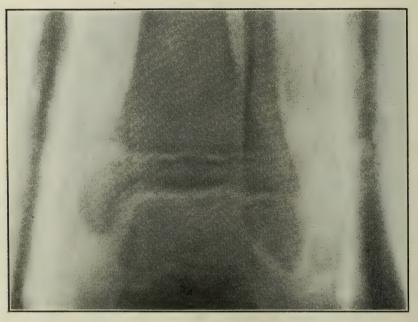
(3) Showing the fracture and displacement in picture No. 2 reduced.



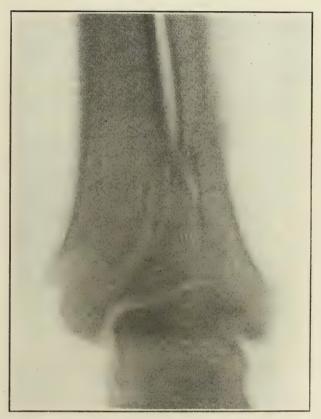
(4) Showing the anterior-posterior view of the fracture in No. 2 after reduction.



(5) Shows slight inward displacement due to overcorrection.



(6) Showing the overcorrection of No. 5 corrected.



(7) Showing marked eversion and outward displacement. A line drawn through the middle of the tibia barely catching the inner side of the astragulus.

This patient had had his foot in a cast three weeks and had then been instructed to walk on it—the more the better. In a fracture of this kind weight bearing should be deferred for ten to twelve weeks from the date of injury.

tient can walk only by everting the foot. Posterior displacement also prevents dorsal flexion, because of the tight tendo Achilles.

The object of this paper is to describe in detail a practical unopen method of treating these conditions which is successful in all but a very small percentage of cases. We consider successful those cases which have a good functional result and a minimum of

deformity.

When a fracture of the lower end of the leg is first seen, as careful an examination as is possible without giving the patient too much pain is made, and we endeavor to arrive at a definite clinical diagnosis. The fracture is then reduced as accurately as is possible without an anesthetic and with the clinical diagnosis as a guide. A trough splint of firm boards, six or seven inches wide, extending from well above the knee to well below the foot, is then applied. This is thickly padded with common cotton, extra padding being placed above the malleoli, below the knee and wherever else needed to protect eminences and hold the foot in the desired

position.

The leg is allowed to remain in this splint five to seven days, during which time antero-posterior and lateral radiographs are made and used as a guide in the reduction (if a further one is necessary) and permanent dressing. At this time the patient is usually anesthetized, and with the X-ray pictures at hand, a careful adjustment is attempted, the procedure varying with the condition one is trying to correct. In a typical Pott's fracture we use inversion and strong adduction, being careful to make inversion of the tarsus, the foot as a whole to be at right angles with the leg. In fracture of the fibula alone the position of the foot should vary with the deformity. If there is little displacement of the fragments, we use slight inversion. If the deformity is a denting in toward the tibia, strong inversion may be needed, and so on. These rules are well known.

The important points to remember are:

1st. Watch lateral displacement inward or outward of the astragalus on the tibia.

2d. Watch anterior or posterior displacement of the astragalus

on the tibia.

3d. Keep the tibia and fibula closely approximated.

4th. Keep the foot at right angles to the leg.

To do these things successfully, it is necessary to know the anatomy of the parts in detail, to be familiar with the use of some moldable splint, preferably plaster of Paris, and to have trained assistants.

If there is anterior displacement, it is corrected by strong trac-

tion and direct pressure backward.

If there is posterior displacement, it is corrected by strong plantar flexion, followed by a forward pull and dorsal flexion to a

right angle.

The reduction of either of the above displacements is made easier by flexion of the knee for the purpose of relaxing the tendo Achilles, and when this measure is not sufficient, it may be neces-

sary to do a subcutaneous tenotomy, as we have had to do in several cases unreduced for a considerable length of time.

The lateral displacement, usually outward, is corrected by adduction of the tarsus, not the metatarsus or phalanges only.

The adjustment is checked up by the appearance of the foot; comparing it with the other, allowing, of course, for swelling, and by careful palpation, which is very important; by freedom of flexion and extension, and later by the X-ray.

After reduction has been obtained, it must be maintained while the cast is being applied, and this is where it is essential to have a trained assistant or at least one who has an understanding of

what he is wanted to do.

That reduction and retention can be accomplished in this manner we believe is possible in all but a small percentage of cases. If we can get reduction, we can in nearly all instances maintain it by the judicious use of plaster. The cases requiring nailing have been rare, and those few have been patients referred for bad re-

sults of several months or years standing.

The advantages of the unopen method are that there is not the danger, however slight it may be, of infection, and there is not the foreign body to interfere with osteo genesis, as it does in a certain proportion of cases and frequently requiring removal. In the typical Pott's fracture, where the tibio-fibular ligaments are torn, weight bearing should not be allowed for eight to ten weeks, for fear of causing spreading of the ankle joint.

1800 N. Charles Street.

Book Reviews.

The Nose, Throat and Ear; Their Functions and Diseases. A Treatise Upon the Breath-Road, Food-Road and Accessory Organs. By Ben Clark Gile, M.D., Instructor in Otology in the University of Pennsylvania and Formerly Assistant in the Throat and Nose Dispensary of the University Hospital; Assistant in the Department of the Nose and Throat and Ear and Dispenser Chief at the Presbyterian Hospital; Consulting Laryngologist to the Taylor Hospital and Formerly Instructor in Otology in the Polyclinic Hospital and Post-Graduate School of Medicine, Philadelphia; Fellow of the American Laryngological, Rhinological and Otological Society. With 131 Illustrations, Eight of Which Are Printed in Colors. Philadelphia: P. Blakiston's Son and Company. 1915. Cloth, \$2.75 net.

Medicine in all its specialties has made such rapid advances during the past decade that it taxes the specialist to keep up with his specialty; then what is to be expected of the student who is supposed to be more or less of a specialist in every line when he graduates? Undoubtedly his time is so full that it is getting more and more difficult for him to grasp the details of the management

of disorders of the body. And this even despite the great increase in the number of hours which he is now compelled to devote to his studies before being awarded his license to practice. This state of affairs can only be remedied by intensive study of the specialties. The essentials in the diagnosis and treatment should be thoroughly instilled. If the groundwork is assimilated, then it is an easy matter for the student to use a text-book intelligently. Gile has just written a book of this character on diseases of the nose, throat and ear. Within a compass of some 450 pages he has, with brevity, clearness and thoroughness, set forth the essentials of his specialty. Going logically from one subject to another, he has in a connected manner shown the relationship existing between the various nasal and otological maladies. If the student and general practitioner can be educated to recognize the commoner of the nasal maladies, one may rest assured that they will have sufficient judgment to give good, sound advice to their clientele not only in these, but also the rarer remedies. At any rate, they will be sufficiently impressed to refer the case to the proper person for advice. Such a book as the one before us will go a long way to educating the student and general practitioner in good, sound thinking when it pertains to matters affecting the air passages. The author has given us an excellent presentation of the subject, and it gives us great pleasure to recommend the volume to our readers.

THE MEDICAL CLINICS OF CHICAGO. September, 1915. Volume 1, Number 2. Bi-Monthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Company. Paper, \$8 per year.

More and more the profession is coming to learn that more of practical value can be obtained from short, concise articles by representative men, especially when case reports, with the methods of arriving at the diagnosis, are incorporated than from lengthy discourses. With this idea, and based upon these thoughts, Saunders of Philadelphia, ever in the forefront of advancement in American medical literature, are now issuing a bi-monthly incorporating the work of the leaders of the Chicago profession. This number contains reports from the clinics of Isaac A. Abt, William Allen Pusey, Frederick Tice, Walter W. Hamburger, Robert B. Preble, Maurice L. Goodkin, Ralph C. Hamill, Charles Spencer Williamson and Charles Louis Mix, a coterie of men with at least national reputation. Murphy's Clinics have proven so acceptable to the surgical branch of the profession that surely the Medical Clinics should prove an equal boon to the medical. In the present number the publishers have incorporated articles on heart disease in pregnancy, indications for induction of therapeutic abortion and premature labor, cardiac neurosis, psychic effect of heart disease on patient, aricular fibrillation, a case of mitral stenosis and mitral insufficiency in a young girl without subjective symptoms, splenic enlargement, a case of uncomplicated duodenal ulcer (the differential diagnosis and management), carcinoma of the stomach, tuberculous meningitis, etc. Surely these reports should prove intensely valuable to the internist.

The Starvation Treatment of Diabetes. With a Series of Graduated Diets as used at the Massachusetts General Hospital. By Lewis Webb Hill, M.D., and Rena S. Eckman, Dietitian. With an Introduction by Richard C. Cabot, M.D. Price \$1. W. M. Leonard, Publisher.

This book furnishes to the general practitioner in compact form the details of the latest and most successful treatment of diabetes mellitus. It presents the clinical application of the work done in recent years by Dr. Allen at Harvard and the Rockefeller Institute.

This method of treatment, carried out by Dr. Allen at the Rockefeller Hospital, and by the Staff at the Massachusetts General Hospital, has proved very successful. As Dr. Cabot states in the introduction: "It seems already clearly proven that Dr. Allen has notably advanced our ability to combat the disease. * * * To all who wish to give their patients the benefit of this treatment I can heartily recommend this book." In a recent address Dr Allen said: "However specialists may feel, there is no doubt that a majority of average practitioners feel bewildered and helpless concerning diabetes."

To all who have been tried by this baffling disease, this little volume, with its description of treatment, tests and diets, will be of greatest service.

The Limitation of Offspring. By William J. Robinson, M.D., Chief of the Department of Genito-Urinary Diseases and Dermatology, Bronx Hospital and Dispensary; Fellow of the American Medical Association and of the New York Academy of Medicine; Member of the American Urological Association, American Medical Editors' Association, etc.; Editor of The Critic and Guide and of The American Journal of Urology, Venereal and Sexual Diseases; Author of Never Told Tales, Sexual Problems of Today, Practical Eugenics, Sexual Impotence and Other Sexual Disorders in Men and Women, etc. With an introduction by A. Jacobi, M.D., LL.D., Ex-President of the American Medical Association. 1915. New York: Critic and Guide Company. \$1 net.

This book incorporates the arguments which Doctor Robinson has been preaching for a number of years concerning the volitional control of pregnancy. He is firmly convinced that there should be better and fewer offspring. He says that there is no more harrowing sight in the home of the very poor, moderately wealthy or wealthy than an undesired pregnancy, which, in the case of the two former classes, often spells financial ruin, and even suicide. He, therefore, has written this book to instruct the laity as to the proper means of preventing conception. His doctrine is this: Under any conditions, and particularly under our present economic conditions,

human beings should be able to control the number of their offspring. They should be able to decide how many children they want to have, and when they want to have them. To accomplish this result he demands that the knowledge of controlling the number of offspring, the knowledge of preventing conception, should not be considered criminal knowledge; that its dissemination should not be considered a criminal offence punishable by hard labor in Federal prisons, but that it should be considered knowledge useful and necessary to the welfare of the race and of the individual, and that is dissemination should be as permissible and as respectable as is the dissemination of any hygienic, sanitary or eugenic knowledge. It is, then, with this aspect of sociological medicine that Doctor Robinson's book deals. Both the pros and the cons are unbiasedly considered. Whatever the personal opinion of our readers, they must admit that it is time, and high time, to find a way to limit the offspring of the epileptic, the confirmed drunkard, the mentally unbalanced, the diseased. Doctor Robinson merely goes a step further—he looks upon poverty as a disease, and as such should be subject to control in the matter of procreation. Whether for or against his theories, the laity and the profession should read the book, which is based upon actual observations made by Doctor Robinson in his daily rounds.

THE CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. OCTOBER, 1915. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. A Bi-monthly. Paper, \$8 net.

These clinics have become so thoroughly essential to the surgical side of the profession that it is needless to emphasize any longer its merits. As in every one of the preceding issues, so in this, there are a number of articles of genuine interest to the surgeon. This number covers a wide field of general surgery, such as intraabdominal, bone, joint and thoracic work. It is a mirage of the daily work being done by Dr. Murphy at Mercy Clinic, and is, therefore, practical. If you have not already subscribed to The Clinics, you should.

EMERGENCY SURGERY. By John W. Sluss, A.M., M.D., Associate Professor of Surgery, Indiana University School of Medicine; ex-Superintendent Indianapolis City Hospital; Surgeon to the City Hospital. Third edition, revised and enlarged with 685 illustrations, some of which are printed in colors. Philadelphia: P. Blakiston's Son & Co. Leather, \$4 net. 1915.

Sluss is undoubtedly correct when he states the general practitioner of today must be prepared to meet imperative surgery when it arises. With the time now demanded of medical students there is no earthly reason why they should not be reasonably pre-

pared to operate on urgent cases as they arise. He is also right when he says more and more surgery should be done in the home. Certainly this statement applies with great force to those settlements at a distance from large centers of population. What hope is there for a gunshot wound of the abdomen in a patient many hours from a hospital if the local physician is not prepared to operate. So with a number of urgent surgical conditions the local physician should be prepared to operate in case of emergency. If not, his medical education has been sadly imperfect. As a guide to this class in hours of stress, Sluss' Emergency Surgery will be found of incalculable value. It covers, and covers well, most of the surgical conditions which demand immediate attention. The only criticism which we feel constrained to make is that many would-be surgeons in reading its pages will be deluded into believing that intricate surgical therapeusis is easy, and thus attempt to do something for which they are entirely unprepared, as the book is so well written that it leaves the impression all surgery is easy. However, for those who are reasonably prepared, it is an admirable guide.

The Principles and Practice of Obstetrics. By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School; Obstetrician to the Chicago Lying-in Hospital and Dispensary, and to Wesley and Mercy Hospitals; Consulting Obstetrician to Cook County and Provident Hospitals, etc. 938 Illustrations. 175 in Colors. Second Edition, Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$8 net.

De Lee's obstetrics represents the last word in book-making. Without doubt, taken all in all, it is the best obstetrics on the market. Magnificently illustrated, well printed, and of easy diction, the reader can ask no more. Without anything else, the illustrations would make the book, but when this feature is added to the beautiful diction, one naturally becomes enchanted with the book. No words can describe its virtues. It is so absolutely complete and is one of the best exponents of the bookmakers' art that it has been our pleasure to see in many a day. Anybody desirous of purchasing a complete reference book will find it here. And as in so many books, one will not hear the complaint that the purchaser is disappointed. If he is, nothing can satisfy him. Here from alpha to omega the entire art and science of midwifery, from the beginning of conception to the management of the puerperium, is faithfully reproduced. The anatomy, the physiology, the diagnosis, the management of pregnancy are one and all plainly expounded. Both the theoretical and practical sides of obstetrics are thoroughly treated. We could not criticise if we would, as there is not a vulnerable point. It has our utmost praise. Nothing is then left for us but to give it our heartiest endorsement and recommendation, as we know it will please.

MARYLAND MEDICAL JOURNAL

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BALTIMORE, MARCH, 1916

THE STARVATION TREATMENT OF DIABETES.

Of the important contributions to recent medical progress, none is more interesting to the internist or holds out more promise of relief to suffering humanity than the starvation treatment of diabetes as inaugurated and practiced by Dr. Frederick M. Allen of the Rockefeller Institute Hospital. If the results of this treatment as furnished by Lewis Webb Hill, together with a series of graduated diets as used in the Massachusetts General Hospital are as successful in the hands of others, a distinct advance has been made in the therapeutics of diabetes mellitus. The plan of treatment is simplicity itself. As it has been employed with so much success at the Massachusetts General Hospital, it cannot help but be of more than passing interest to our readers. To insure success, the physician must think in grams of carbohydrate and proteid. It is not enough to cut down the supply of starchy foods, he must know exactly how much carbohydrate and proteid food the patient is receiving each day. As practiced at the Massachusetts General Hospital, the details are as follows:

For 48 hours after admission the patient is kept on ordinary diet, in order to determine the severity of his diabetes. Then he is put to bed, and no food allowed, except whiskey and black coffee. The water intake need not be restricted. The whiskey is given in the coffee, one ounce of whiskey every two hours from 7 A. M. to 7 P. M. This diet furnishes roughly about 800 calories. Sodium bicarbonate, two drachms every three hours, may be given if there is evidence of acidosis, as indicated by a strong acetone or diacetic acid reaction in the urine. In most cases this

has been found unnecessary. Those who have practiced this severe reduction in diet have noticed no evidence of impending coma. Heretofore a severe reduction in diet in diabetics was looked upon askance and was dreaded as the possible precursor of coma. Therefore this observation, that diabetics will tolerate starvation without ill-effects is most important. The patient is kept in bed and on the above diet until he is sugar free, the sugar usually disappearing from the urine in two to three days; seldom does it take longer. Dr. Hill states the patients withstand starvation remarkably well, and in no case has he seen bad results from it. As soon as the patient is sugar free he is allowed to get up and is placed upon a diet of vegetables containing 5 per cent. carbohydrate. A moderate amount of fat in the way of butter can be given with this diet if desired. The first day after starvation the carbohydrate intake should not be over 18 grams. Then, according to the behavior of the patient, the proteid, fat and carbohydrate diet is gradually raised, always bearing in mind that an excess of proteid is an important factor in causing glycosuria. If sugar appears in the urine during the raising process, drop back to a simpler diet. If this proves unavailing, repeat the starvation process and raise the diet more slowly. The author definitely states if the diet is raised very slowly, sugar will not reappear. If the patient is taking a fair diet and is doing well without any glycosuria, it is not desirable to raise the diet any higher than proteid 50, carbohydrate 50 and fat 200 grams. The essential points brought out by Allen are:

It is not dangerous to starve a diabetic, and two or three days of starvation almost always make a patient sugar free.

After starvation the diet must be raised very slowly.

An excess of proteid must be regarded as capable of producing glycosuria.

It is not desirable for all diabetics to hold their weight.

Although this treatment has only been in existence slightly over two years, it apparently has yielded those who have tried it far superior results than the old methods of treating diabetes mellitus. It is yet too early to forecast the permanent effect of such a diet, but it does appear that a substantial advance in the treatment of diabetes has been made, and we give it to our readers for a trial.

Medical Items.

Two former members of the staff of Johns Hopkins Hospital have been decorated by Germany for their services in the Medical Corps of the German Army. Dr. Karl H. Van Noorden, Jr., who was attached to the medical staff at the Hopkins, was decorated with the iron cross of the second class after the battle of Lodz, in which he was shot through the hip; and Dr. Felix Landois, who was also on the surgical staff, now surgeon-in-chief and organizer of a field hospital at Ledeghen, Belgium. He was decorated with the Order of Frederick and with the iron cross of the second class, bestowed by the King of Wurttemberg.

Dr. Joseph I. France of Port Deposit and Baltimore has announced his candidacy for the nomination for United States Senator.

Dr. WILLIAM H. BASH, in charge of the accident ward of Mercy Hospital, Baltimore, has resigned, to take effect in May. He will practice in West Virginia. Dr. H. Hayward Johnson, an interne, has been appointed to succeed Dr. Bash.

Dr. Roy D. McClure of the resident staff of Johns Hopkins Hospital has accepted the position of surgeon-in-chief of the Henry Ford Hospital, Detroit.

SMALLPOX has again broken out in Hagerstown, six cases having been reported, four of which patients have practically recovered. Dr. C. W. G. Rohrer, assistant chief of the Bureau of Communicable Diseases of the State Board of Health, has been to Hagerstown and investigated every reported case. It is thought the disease was brought to Hagerstown from Roanoke, Va.

The articles of merger between the College of Physicians and Surgeons and the University of Maryland were ratified by the regents of the University January 5, and by this act the combination between these schools becomes a legal fact. The members of the faculty of the College of Physicians and Surgeons who were taken into the board of regents of the university are as follows: Drs. John W. Chambers, Harry Friedenwald, Archibald C. Harrison, Standish McCleary, William F. Lockwood, William S. Gardner, Cary B. Gamble, Jr., and George W. Dobbin.

A BILL providing for an appropriation of \$10,000 for the erection of a hospital in Charles county, to be known as the Southern Maryland Emergency Hospital, has been introduced in the General Assembly. The bill provides for an additional appropriation of \$3000 a year for maintenance, and provides also that the \$10,000 appropriation is not to become available until the directors of the institution certify that an additional \$5000 has become available, either through private donations or by levy made by the county commissioners, or both.

Dr. Thomas M. Stewart announces his association with Drs. John W. Murphy and Martin H. Urner and his removal to their offices and private hospital, suite 2711 Union Central Building, Fourth and Vine streets, Cincinnati, Ohio.

Dr. Hugh H. Young, who has been convalescing at Johns Hopkins Hospital for some days from illness, spent a few days at Atlantic City after leaving the hospital. He was accompanied by Mrs. Young.

THE Ladies' Board of the West End Maternity Hospital held a linen shower and reception at the hospital, 112 North Calhoun street, on February 22, for the benefit of the free wards.

THE Ladies' Auxiliary of the Board of St. Agnes' Hospital gave a benefit theater performance and dance on February 21 at the Academy of Music.

Dr. William H. Welch has been elected president of the University Club of Baltimore, Md.

ENGAGEMENT

The engagement is announced of Dr. Clifford Clinton Hartman, Johns Hopkins Medical School, '11, of Pittsburgh, Pa., to Miss Carlotta Barnes Bailey of Churchville, Md. Dr. Hartman is a member of the medical staff of the Allegheny General Hospital, Pittsburgh, Pa.

MARRIAGES.

DAWSON L. FARBER, M.D., Baltimore Medical College, '13, to Miss Jean Cowan Ennis, both of Baltimore, Md., at Rockville, Md., September 9, 1915. They will reside in Magnolia, O., where Dr. Farber will practice.

Russell H. Dean, M.D., University of Maryland Medical School, '12, to Miss Esther F.

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CÆSAREAN SECTION—INDICATIONS AND TECHNIQUE AS PERFORMED BY THE AUTHOR.*

Erasmus H. Kloman, Ph.G., M.D., Ealtimore, Md.

WHEN one carefully studies the literature published on obstetrical problems since the advent of aseptic surgery, two important advances seem to stand out as milestones. One is an advance in obstetrical therapeutics. The animal drug, extracted from the posterior lobe of the pituitary gland, has so lessened the apparent and real necessity for obstetrical forceps that we should all welcome it with a prayer of thanks. The other milestone is the one I have selected to talk on to you today, the modern Cæsarean Section. I say "modern" because, as you know, this operation has been done for ages. It was used by the early Egyptians, who performed the operation after the death of the mother with the hope of saving the child. Again, in the sixteenth century, it was done on the living, the method being described by Porro in his method of amputating the uterus. Cæsarean Section has continued to progress along with other surgery, receiving its greatest stimulus with the advent of the principals of antisepsis and asepsis. From being an operation used as a last resort, and nearly always fatal, it has been gradually improved until now we hardly expect more than 3 to 5 per cent. mortality.

In the last few years it has become more and more popular as a method of delivery in cases where difficulty is expected or encountered. But, like every other new idea in medicine, being a grand-stand performance, it is in danger of abuse.

With a limited time at my disposal, I want to try to give you the true indications for the operation and a short reference to the technique.

When I began to do Cæsarean Sections I was frequently embarrassed by the criticisms of my friends that "the child would have been born without such an operation," but their words soon failed to cut so keenly when I realized the same criticism could be passed

^{*}Read before the annual meeting of the Medical and Chirurgical Faculty of Maryland, April, 1915.

upon men working in any branch of medicine or surgery. Yet the restraint of criticism is good, for I know the operation is done at times without proper thought and care—in such cases, for instance, as operation on a septic woman; operating to remove a retained head where the body has been pulled off by brute force, and opening the abdomen when the child is not known to be alive.

I would first like to group the indications for Cæsarean Section and then respectively outline them for your consideration.

First—We have obstructions to birth—contracted pelvis, pelvic tumors, carcinoma of cervix, undilatable cervix, ventral fixation of fundus and large child.

Second—We have immediate danger to mother or child—eclampsia, uterine hemorrhages, either placenta previa or premature separation of the placenta, funis presentation.

In cases of contracted pelvis where the conjugata vera measures seven and a half centimeters or less I think all of you will agree with me that the Cæsarean Section is indicated, providing surgical cleanliness and a living child exist. Again, when the deformity is so great that the true conjugata measures five and a half centimeters or less with the large child, whether dead or alive, Cæsarean Section is indicated, because we cannot safely do a destructive operation through a small outlet even after craniotomy. When we come to those pelves that give a conjugata vera larger than seven and a half centimeters it must be born in mind that measurements are not always infallible, and the accoucheur should take into consideration not only the conjugata vera alone, but, as Dr. Williams has so clearly shown us, the measurement of the pelvic outlet as well. The size and position of the child's head must also be considered. It is not an easy task to estimate the size of the child's head by Mueller's method, and to my mind the judgment of an experienced accoucheur is far more accurate. These cases every obstetrician should explain in advance to the parents, that, should difficulty arise, the abdomen may be opened with safety, provided examinations have not been made. The woman may select, if she so wishes, this operation before other uncertain and hazardous ones are tried. It is then the obstetrician's duty to equip himself with the art of external palpation during labor and to call upon expert assistance before he makes an internal examination or before the patient becomes exhausted.

Lastly comes a series of cases where a given woman has a slightly contracted pelvis, but has had several confinements with long labors, resulting in forceps deliveries of dead children. These women, to my mind, should be given a choice between Cæsarean Section or premature induction of labor, the latter of which is not without danger to the mother, does not by any means guarantee her a living child or one that will live even though born alive. However, even though the patient is a primpara and selects Cæsarean Section for a slightly contracted pelvis, I think she should be given a chance for natural delivery.

TUMORS OF THE PELVIS.

Fortunately, we do not see many cases with tumors of the pelvis, for most women with large myomata or ovarian tumors fail to conceive or abort early in their pregnancy. However, we do find these tumors in the passive part of the uterus obstructing the passage of the head. All such cases are more happily treated by Cæsarean and the tumor or tumors removed at the same time with the uterus. If these cases are diagnosed early in pregnancy, it is more practical, certainly so far as ovarian tumors are concerned, to remove them early. This does not necessitate Cæsarean Section, and only causes abortion in about 1 per cent. of the cases. When the pregnancy goes to full term a Porro operation is indicated. Cases of carcinoma of the cervix are, happily, rare, yet when they are met with, I feel sure you will agree with me that all advanced cases at least are better treated by this operation.

We know that most cases that have one of the many operations to correct retrodisplacements go through subsequent labors without difficulty, but occasionally we see cases where the fundus has become fixed and the cervix points toward the promontory of the sacrum. The child frequently presents abnormally, and should labor be allowed to progress, most of these cases would result in rupture of the uterus. Again, we see cases of atresia of the vagina, double vagina and atresia of the cervix due to scar tissue either from previous labors or, as I have seen, from very strong antiseptic douches. Is it not better here to do a clean abdominal operation rather than let the child's head tear its own canal? I believe that all these cases, including those where a large child is causing a very difficult labor, are better treated by clean, quick abdominal operation rather than trust that an operation from below will give you a living child. In the latter course lacerations and permanent harm done the mother is so great that if she does live she may be left a permanent invalid to remain sterile or have some dreaded fistula requiring large plastic operations for their correction.

Under conditions of immediate danger to mother or child we first have eclampsia. Believing that I am not assuming when I say that the majority of obstetricians agree to empty the uterus early when eclampsia exists, then we must do the operation of least danger to the mother and child. All cases where the disease appears before labor and before the cervix is dilated, where the child is viable or where there is slight pelvic disproportion, are best treated by abdominal Cæsarean. Vaginal Cæsarean is only indicated where the mother is septic or the child under seven months. In cases where dilatation can be easily completed by the manual method, delivery from below is better treatment.

PLACENTA PREVIA.

I, personally, am inclined to think that all cases diagnosed early, whether partial or complete, are best treated by Cæsarean, provided the case has not been handled much and dilatation is not

complete. It certainly stands to reason that waiting to do a version or some other operation is more dangerous for the mother, and we know that foetal mortality is very high in this disease. In all cases of complete placenta previa at or near term Cæsarean Section is the operation of choice. In concealed hemorrhages due to premature separation of the placenta we are seldom so fortunate as to find the child alive. The uterus is generally very rigid with no dilatation and the mother showing great shock, as in ectopic gestation. Here is one case in which I believe any good man is justified in doing a Cæsarean Section in a private home, provided he is equipped to control hemorrhage and use fair technique. By quick work he may save both patients. Even if there is a question of the child's being dead, I believe we are justified in doing an abdominal operation to save the life of the mother, the vaginal route being much slower and not so certain. I have never seen a case of the so-called funis presentation, but should I encounter this condition, and should it persist, I should immediately advise Cæsarean Section.

Before taking up my technique for Cæsarean Section I would like to ask for a few moments to consider the contra-indications for Cæsarean and to give a few words about Pubiotomy, which is the operation most likely to come in competition. First, Cæsareans are rarely ever indicated where the mother is septic, where many internal examinations have been made, where the foetus is dead or where some deformity such as Hydrocephalus is known to exist; second, where the condition indicating its use appears before viability of the child and where the operator is not competent and good technique cannot be used.

I feel duty bound to say just a word about Pubiotomy, because I am not in favor of this operation except in rare cases and then only in the hands of very skillful operators. In the first place, it requires at least two more assistants. Danger of uncontrollable hemorrhage is great, rupture of the bladder is not unheard of, and you do not have the same guarantee that you will deliver the woman. Tears are common, and, to my mind, there is quite as much danger of infection; the puerperium is longer and the result more uncertain. The one argument in its favor is that you may get a larger pelvis with the next labor, requiring no operation.

TECHNIQUE.

In all cases except where sepsis is highly probable and those cases where I expect to remove the uterus I have practiced the following technique: After the external vagina is thoroughly shaved and cleaned with soap and water, followed by bichloride solution, I have a large, hot, salt vaginal douche given. Then the patient is catheterized and the vagina swabbed out with 70 per cent. alcohol followed by iodine. The abdomen is then shaved and cleaned in the same way, or, if the particular hospital uses iodine alone, I see no reason to object to its method.

The abdominal incision, about six inches long, is made a little to

right of midline, high up, two-thirds of it being above the umbilicus. Hot towels are then placed so as to cover the edge of the abdominal wall, and the assistant then pushes the uterus to the right side so the incision can be made low down and to the left of the midline of the uterus. This is done to avoid contact of the abdominal and uterus scar and to lessen possibility of adhesions. Before incising the uterus several large gauze packs are arranged to prevent Amniotic fluid coming in contact with the peritoneum. I think there is less contamination in this method, when carefully done, than when the uterus is delivered and fluid allowed to run down its side. The uterus is not delivered before the child. If the placenta is on the anterior wall, it is torn through and one of the legs of the child grasped and delivered. This should be followed quickly by removal of the placenta and membranes by the assistant. I have learned by experience to make no attempt to control hemorrhage by placing bands or assistant's hands around the lower segment. This is practically of no importance compared with getting the uterus empty and massaging the fundus with firm pressure in hot towels at the same time as delivering the uterus through the abdominal incision. Never get frightened when placenta is on the anterior uterine wall. Quick delivery is what you want, and no attempt to clamp off uterine sinuses will do good. I always tell the assistant, who is holding the uterus in hot towels, that it is not an egg and he cannot hurt it by firm hand massage. Having the uterus emptied of all its contents, we then put in two layers of interrupted No. 2 catgut, using a third continuous suture to overlap the peritoneum so there is no raw area. If the uterus does not contract fully, it is well to give a hypodermic of pituitrin of ergot, but hot towels and massage usually suffice. The gauze is now removed. If sterilization is necessary it is done by resecting uterine ends of tube. I do not dilate the cervix, even though dilatation is slight, unless internal examinations have been made and it is necessary to drain. The abdominal wall is sutured in the usual way and the patient then treated as any other puerperal case.

In septic cases where likelihood of peritoneal soiling is evident there are many operations to choose from. I am in favor of doing the Porro operation or complete Panhysterectomy with thorough drainage. Of course, this is an operation none of us like to do, as here we remove from a young woman the organs which will not only make her sterile but will bring on a premature menopause with all its distressing symptoms. These are the cases where the operation has its weakest points, and I sincerely trust that some of the operations devised will prove themselves worthy in the future of a place in obstetrical surgery. Among these latter we have the extra-peritoneal route devised by the Germans and done in this country by some few men. Kerr pushes the placenta and membranes through the cervix after removing the child. Sellheim formed a utero-abdominal fistula at the lower part of the abdominal wound to shut off the peritoneum from infection.

To the general surgeon who may do this operation, without the

previous bitter experience and hard work of the obstetrician, I would like to say that this operation is no clean appendix, no gastro-enterostomy, but a work fraught with special danger of infection, as are all operations on pregnant women.

ANESTHETIC.

I think a great deal could be said on the choice of the anesthetic to be used. In the past three years I have been using a method suggested by Dr. S. W. Moore and Dr. S. Griffith Davis, and it has given excellent results in the hands of these two men, who have shown much interest and assisted me materially. Chloroform is not a good anesthetic in obstetrical work if you have a long operation, as it is not an uncommon thing to have chloroform poisoning result in a few days following, or even death from failure of the heart at the time. Ether is not as well borne by the child as chloroform and it is frequently necessary to do much resuscitating after delivery of the child. We, therefore, decided to compromise and begin the anesthetic with chloroform until delivery was complete, which only takes a few minutes, then to switch to ether and complete the operation. With this anesthetic I have had no cynotic births; in fact, I have been able to make nearly every delivery with the child crying lustily when it was handed to the assistant.

Just a word in conclusion to give you a brief idea of my own cases. I have now done 30 of these operations, and the indications cover nearly all that I have spoken of in this paper. My results have been very happy, only one death of a mother and that due to infection. Every child has lived. Three of my cases were done in private homes, one in eclampsia 48 hours. Two of the operations were for complete placenta previa, six for eclampsia, one for fibroid in cervix, one for ventral fixation with a transverse presentation, eleven for absolute indications, eight for slight indications. Among these one Cæsarean was done on a woman weighing 300 pounds, who had had four pregnancies with no living children. Child and mother are both well. One case I did the third Cæsarean on for absolute indications. I sterilized her, as I felt she has done her part.

For the foregoing reasons, you see, I have a great deal of respect and regard for this operation, and I believe it to be a good operation when properly selected. It is one that will not only take away the horrors of badly contracted pelves, but will aid materially in placenta previas, eclampsias, pelvic tumors, and last, but not least, those border-line cases and high-forceps cases where the mother will be allowed to have a say and lessen for herself those dreaded conditions following brutal and uncertain results of the obstetric forceps. It has the added virtue of making certain your delivery, lessening the chance of hemorrhage and relieving suffering.

Remember that it is not alone the function of the obstetrician to so improve his art that the maternal mortality will be lowered, but to give the foetal mortality a consideration of close second.

1800 N. Charles St.

MULTIPLE VENEREAL COMPLICATIONS— REPORT OF CASE.

Sylvan H. Likes, M.D., and Herbert Schoenrich, M.D.,
Baltimore, Md.

It is not at all unusual to see more than one venereal disease affecting an individual at one time. We often have patients, after presenting an acute gonorrhea, develop a few days subsequently an initial lesion of syphilis, and occasionally thereafter gonorrheal

complications.

The report of this case is of interest, not only on account of the number of complications existing at one time, but the peculiar mental attitude of the patient regarding his afflictions. Mr. M., age 32, recently presented himself for treatment. Examination revealed six sores on his penis—one, fairly large, involving the frenum, ulcerating in character, considerably infected and slightly resembling a soft chancre; another, dime size, edges very slightly indurated, in the region of the center of the penis. None of these sores were much indurated, and clinically it was impossible to make a positive diagnosis. These sores were covered with a foul, gravish exudate, and from the fact that there was such slight induration, and, furthermore, that several examinations of the secretion under the Dark Field Condenser failed to reveal any evidence of the treponema pallida, led us to believe that these sores were soft chancres rather than multiple initial lesions. The fact, however, that later the Wassermann showed a triple positive reaction and the lesions responded promptly to anti-syphilitic medication forced us to change this tentative diagnosis from soft chancre to multiple hard chancres. While it is possible that these sores on the penis may have been manifestations of a previously existing lues, the absence of any other lesions or history thereof, as well as the marked inguinal adenitis, led us to exclude such a possibility. We may add here that the failure to find spirochaetes in sores which later investigations prove to be initial lesions is contrary to our findings and stamp this as a marked exception to our experience. The prepuse was edematous and inflamed to such an extent almost producing a phimosis. The entire organ was swollen and sensitive. The inguinal glands on both sides were swollen; those on the right side were on the verge of suppuration. Furthermore, he had a gonorrhea which dated back several weeks, and we found that not only was his anterior urethra affected, but also that the prostate and bladder were involved. The urine was very purulant, and the three-glass test showed a uniformly cloudy urine. The prostate was enlarged and tender, pus rich in gonococci exuding on massage. He was extremely irregular with his visits, and within 10 days after his initial visit developed an epididymitis, complaining at the same time of severe pain in his perineum and rectum. This pain was due to a gonorrheal periurethral abscess pointing toward the perineum and to a large protruding hemorrhoid. And last, but not least, he was not forsaken by the pediculosis pubis that surely felt an equal right to be present as a delegate to represent the animal parasites. Strange as it may seem, the pain from the hemorrhoid apparently caused him more consternation than all of his other complaints combined. Thus the complete diagnosis: Multiple chancre, constitutional spyhilis, gonorrheal urethritis, gonorrheal prostatitis, gonorrheal cystitis, gonorrheal periurethral abscess, epididymitis, hemorrhoids, pediculosis pubis.

By the time when the complete diagnosis was fully established the patient, a painter by trade, unable to obtain employment in

Baltimore, had to go elsewhere to seek work.

After this brief description of the physical aspect of this much venereally afflicted individual, a word of his mental attitude toward his condition adds to the interest of this case, for when we informed him that the Wassermann test of the blood serum was strongly positive and that he was thus affected with constitutional syphilis, we thought it not amiss to lend a little cheer to the series of glooms by saying that we hoped he would not let this extra added feature worry him. He nonchalantly answered: "Nope; there is no use worrying about that, just so the pain from my piles go away!"

REPORT OF TWO CASES OF SARCOMA OF THE SCAPULA.

By Randolph Winslow, M.D.

On September 8, 1808, R. F., an Italian woman aged 21 years, and married, was admitted to University Hospital. As she spoke no English, it was impossible to obtain any adequate history of her case. Physical inspection soon determined that she was several months advanced in pregnancy. She was thin and anemic in appearance. The condition for which she sought relief was a large growth involving the left scapula, and which had grown rapidly. This tumor projected on the dorsal surface of the body as a rounded mass almost the size of an infant's head. It was solid, but not very hard, and was judged to be a sarcoma of the body of the scapula. There was also involvement of the axillary glands. With much difficulty permission was obtained to remove the tumor, but an amputation at the shoulder was prohibited. We were, therefore, handicapped from the start; nevertheless I attempted the extirpation of the growth, with the preservation of the arm. The patient was not a good subject for operation.

A cross incision was made over the scapula, and the bone separated from its connection with the thorax, but the glenoid cavity, coracoid process and a portion of the acromion were not removed; that is, the neck of the scapula and acromion were sawed through. An attempt was made to clean out the axilla, but it could not be



Fig. I.—Sarcoma of scapula.



Fig. II.—Sarcoma of scapula excised January, 1915. Before excision.



Fig. III.-Excision of scapula for sarcoma.

done satisfactorily. The woman was considerably shocked, but rallied, and made a good recovery from the operation, and left the hospital in less than a month with her wounds healed. She gave birth to a child at term, but died of recurrence within a year.

Case II. Jessie J., a colored girl 20 years of age, and married, was admitted to University Hospital on January 14, 1915. Her complaint was a lump on the back involving the right scapula. This began as a small lump two years ago; but before she noticed any swelling there had been some pain in the right arm and shoulder. She had had a fall, but does not know that she struck her back. When discovered the growth was about the size of a hickory nut, but it gradually increased in size and became painful, the pain and soreness extending in various directions. The pain begins about 4 o'clock, and continues all night, seriously interfering with her sleep. She has lost 15 pounds in weight during the year, and is in rather poor condition. On inspection a rounded mass about the size of a closed fist is seen over the right scapula. This is solid, and moves with the scapula. No glandular enlargement was felt, and there was no involvement of the tissues around the right shoulder.

A diagnosis of sarcoma of the scapula was made, and an extir-

pation of the scapula was recommended and accepted.

Operation was done on January 18, 1915. A straight incision was made along the posterior border of the scapula, and another along the spine and acromion process. The muscles connecting the shoulder blade with the trunk were severed, and the deltoid detached from the spine. There was rather free bleeding before the vessels could be secured. When the parts had been sufficiently exposed the acromion process was sawed through at its junction with the spine, and then the neck of the scapula was divided with a small saw. In this manner the coracoid process and the glenoid cavity, as well as a portion of the attachment of the deltoid muscle, was preserved. The wounds were sutured without drainage. She was badly shocked, but an intravenous infusion of salt solution caused a rapid improvement in her condition, and she progressed favorably. Following the shock her temperature reached 102%, pulse 150, soon becoming nearly normal. She was discharged on February 16, 1915. I saw her about six months subsequently, and found a very normal-looking shoulder, but with little active movement at the shoulder joint. The function of the elbow joint and forearm were well performed. She was complaining of pain in the front of the chest, and there seemed to be a thickening of the tissues over the sternum. I imagine, therefore, that she has a recurrence at this point. I advised her to return to the hospital, but she failed to do so, and I have not seen her since.

Sarcoma of the scapula appears to be a comparatively rare disease, and in most of the textbooks in my possession it is not mentioned at all. When it is well developed there is little difficulty in recognizing the condition, but by this time metastases have usually

occurred, and the opportune time for operating has passed. When it is thought proper to attempt the eradication of the disease, the removal of the whole scapula should be done, with, perhaps, the exception of the glenoid cavity, coracoid process and acromion. It is not only a less difficult matter, but a less serious one to leave these structures in situ, and it leaves a more useful joint than would be the case if these parts were removed. The operation is a serious one, and there is usually considerable loss of blood. The vessels should be exposed and tied in continuity before being cut. Joseph D. Bryant says that 66 complete excisions of the scapula have been done, with 14 deaths, or nearly 22 per cent.

A SIMPLE METHOD OF REMOVING FLAT FOREIGN BODIES FROM THE TRACHEA OF THE YOUNG CHILD.

By Richard H. Johnston, M.D.,
Baltimore, Md.

THE method to be described is designed for the rapid removal of flat foreign bodies from the trachea of infants and children up to the age of three years. To the beginner no operation is more difficult than the removal of foreign bodies through the small bronchoscopes designed for infants. To the expert the operation is sometimes fraught with difficulty, because it is not easy to work through a 4 mm. tube unless the child is asleep, which adds to the danger of tracheoscopy. Flat foreign bodies, such as watermelon seed, seldom pass into the bronchus of an infant or young child. They lodge in the trachea almost invariably, and necessitate a tracheoscopy for removal. To obviate the difficulties of working through a small tube, I had a small Jackson separable speculum made which measures 9.5 cm. in length and 10 mm. in diameter, with the light I cm. from the end of the tube. With the handle detached the speculum is passed into the throat, with the child's head straight on the table. The epiglottis is pulled up, and, with the child breathing, the trachea can be explored to the bifurcation. A foreign body can be easily seen, and if it is light in weight, as a watermelon seed, it moves up and down with expiration and inspiration. Forceps, introduced between the vocal cords, are made to grasp the object, which is quickly removed. No anesthetic is used. Atropin is given to dry up secretions. In the removal of two watermelon seeds from the trachea of young children I was surprised at the excellent view of the entire trachea with the head straight on the table. I have no doubt that this method will work equally as well with foreign bodies or other shapes. Thus far I have had occasion to use it only with flat foreign bodies.

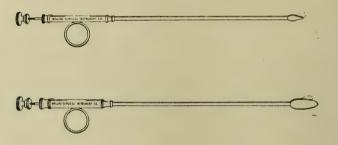
807 N. Charles street.

AN IMPROVED URETHRATOME.

By Page Edmunds, M.D., F.A.C.S.

An instrument devised for cutting so-called impassable strictures of the urethra without a guide. Also for complete incision of the cicatricial tissue without damage to the normal mucosa of the canal.

The set of Urethratomes consists of three instruments varying in size and construction. The first instrument to be used consists of a bulbous bougie, size 22 "F," with knife concealed in the bulb; when extended the knife projects one-eighth of an inch in advance of the point. In use, the point of the urethratome is engaged in the obstruction, the knife advanced, and the obstruction incised one-eighth of an inch. This procedure is repeated until the obstruction has been passed.



The second instrument is much like the ordinary bulbous bougie in shape, with a knife concealed in the bulb. When the knife is advanced, the cutting occurs only on the greater circumference of the bulb. The size of this instrument is 26 "F," which fills exactly the incision made by instrument No. 1.

The third instrument, which completes the set, is exactly similar, being 33 "F" in size and filling exactly the incision of No. 2.

On the handle of No. 2 and No. 3 urethratomes there is a stop which can be used to regulate the depth of the incision. No. 2 and No. 3 are used exactly as one uses olivary sounds to locate obstructions, and incision is then made at this point.

The advantages claimed for these instruments are: Incision of strictures of small caliber without a guide, and elimination of the possibility of false passage. The larger urethratomes completely incise the scar without causing further damage.

These instruments have been in use in the University Hospital by practically all of the surgical staff with very happy results.

A CASE OF INTERSCAPULO-THORACIC AM-PUTATION OF THE UPPER EXTREMITY FOR SARCOMA OF THE SHOULDER.

By Nathan Winslow, A.M., M.D., Clinical Professor of Surgery, University of Maryland.

Whether a sarcoma of the bone ever follows a trauma sufficiently severe to produce facture is still a debatable question. Murphy asserts positively that sarcoma never follows, but always precedes, fracture, and in his writings declares that in his experience he has never seen a sarcoma following a trauma sufficiently severe to produce fracture. Such a sequence is true in the majority of cases, and possibly in every instance. The case about to be reported appeared at first glance to be an exception to this rule, but a closer examination of the first skiagram (Fig. 1) positively shows sarcoma. The interest in the case then centers in its agreeing with the dictum of Murphy, and in the fact that the patient now, more than two years after an interscapulo-thoracic amputation, is alive and in excellent health.

Case M. S., male, Finn, married, chair caner, aged 40, a resident of Baltimore, was admitted to the University Hospital, service of Prof. Randolph Winslow, June 7, 1913, suffering with a lump in the shoulder. As there is nothing of interest in the past or family history of the patient, this phase will be omitted. The present history dates back to November 4, 1912, when the patient entered the University Hospital with a fracture of the surgical neck of the humerus. The fracture was incurred by the patient falling down an open areaway several days preceding the injury while on the way from his room to his boarding-house. As the shoulder continued to bother him after using home remedies, he came to the hospital for examination. It was then that a fracture was suspected, a skiagraph ordered, and the diagnosis confirmed. He remained in the hospital until December 3, 1912, when he was discharged as cured, with the following discharge note: "Fracture is united, patient is able to move arm in all directions, and suffers no pain; there is no deformity." Undoubtedly, if one had been on his guard, he would have recognized in the first X-ray, as well as in another taken after the fracture had been reduced, a beginning sarcoma. However, the fact that the patient was suffering with a pathological fracture was overlooked, and as the shoulder, after a lapse of several months, began to swell and give pain, the patient returned to the hospital on June 7, 1913, for further advice. Upon examination the shoulder was found to be markedly swollen, and the upper end of the humerus distinctly enlarged. Sarcoma was suspected and a skiagraph ordered. The radiograph showed that our suspicions were correct. The patient was, therefore, advised to have a resection made of the shoulder

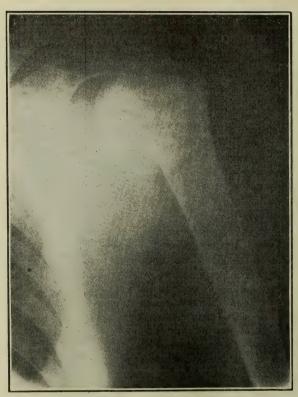


Fig. I.—X-ray taken when patient first entered hospital, upon which the diagnosis of fracture at surgical neck of humerus was made. A closer inspection would have shown beginning malignancy. (Taken with screen image reversed.)

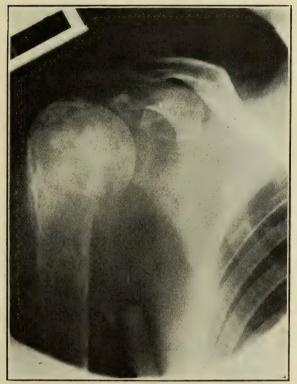


Fig. II.—X-ray upon patient's second entrance to hospital, showing malignancy well developed.



Fig III.—Appearance of patient after amputation. Scar line is plainly visible.

and a bone implantation done. He consented, and on June 30 was taken to the operating-room and a resection begun, but the surrounding soft tissues were found so invaded that after ligating the axillary vessels an interscapulo-thoracic amputation was made. The post-operative course was smooth, and the patient left the hospital August 1, 1913, with the wound completely healed, and in excellent physical condition. He has been heard from only re-

cently, and writes he is enjoying excellent health.

Of course, it is too soon to state that a permanent cure has been effected, but certainly two years of life in excellent condition is worth the risk taken in undergoing an operation of such magnitude. At operation the contiguous tissues were so involved that the operator did not expect to give the patient more than a month or two of life at most, so he is more than pleased with the present outcome. The lesson which we desire to drive home is that malignancy is of varying degrees of intensity, and that operation offers the only hope of prolonging life.

Book Reviews.

Theory and Practice of Bloodletting. By Heinrich Stern, M.D., LL.D., Visiting Physician, St. Mark's Hospital; Consulting Physician, Methodist Episcopal (Seney) Hospital; State Hospital at Central Islip; Deaconesses' Home; Port Chester and Glen Falls Hospitals; Founder and Editor of the Archives of Diagnosis; Formerly Chairman, Section on Pharmacology and Materia Medica, American Medical Association; President Manhattan Medical Society; Fellow of the American Urological Association, the American Therapeutic Society, the New York Academy of Medicine, etc. New York: Rebman Company. 1915. Cloth, \$2.50 net.

Bloodletting, perhaps the oldest of man's remedies, now, after a period of more or less innocuous desuetude, is again beginning to claim attention, perhaps only to pass through one of its many cycles of popularity then to fall into disrepute. It is safe to say no other remedy has passed through so many vicissitudes. Now praised beyond merit, then unjustly condemned, venesection has retained its virility throughout the ages. It has risen, rejuvenated and with new vigor, from the ashes of the fire which threatened its destruction more than once. The people at large, undisturbed by academic strifes, have always been true to it. The physicians have extolled it to the skies or condemned it in the bitterest fashion in accordance with the prevailing status of scientific knowledge. Although we again resort to this remedy of our ancestors when occasion arises, we practice it with a clear and accurate understanding of its physiological, pathological and therapeutical rationale, while they made rather intuitive use of it, employing it in accordance with custom, without discrimination, and on fanciful and fallacious suppositions. Undoubtedly with a clearer understanding of its principles and when and where it is proper to be employed, bloodletting will become more popular. The reviewer himself has used it with great satisfaction in those cases in which the lungs were filling up from a non-compensating heart. He finds a weak fluttering pulse no contraindication. These cases respond promptly, and from being in a most helpless and deplorable condition, anxious, face beaded with perspiration and gasping for breath, they pass miraculously into a condition of comparatively well-being. Stern has attempted to give a comprehensive and scientific monograph on when and where not to employ bloodletting. He realizes that in some instances it is a good agent to employ, and that it should be employed more generally than it is. Read his book and be converted, at least partly, to his views.

International Clinics. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. Volume I. Twenty-fifth Series. 1915. Philadelphia and London: J. B. Lippincott Company. Cloth, \$2.00.

This volume contains articles on many burning topics of the day, such as "Emetine in the Treatment of Emebic Dysentery," by William Allen, M.D.; "The Value of the X-ray Examination in the Diagnosis of Gastric Cancer," by James T. Casey, M.D.; "Epithelioma: Its Early Diagnosis and an Excellent Method of Treatment," by William H. Best, M.D.; "The Treatment of Malignant Tumors by Electrical Methods," by Arthur F. Holding, M.D.; "The Early Diagnosis of General Paresis," by John E. Lind, M.D., and "Auto-Plastic Bone Transplantation," by Vincent Anthony Lapenta, A.M., M.D. Besides those mentioned, there are a number of other articles which will appeal to diagnosticians and therapeuticians.

Transactions of the Tri-State Medical Association of the Carolinas and Virginia. Seventeenth Annual Session, Held at Charleston, S. C., February 17 and 18, 1915. Charlotte, N. C.: Observer Printing House. 1915. Illustrated.

Organization is the scaffold upon which success is built. The more highly organized a profession or nation the greater their success. These remarks apply with equal force to the medical profession. When working as isolated units, but little can be accomplished for the betterment either of the profession or mankind. It is this idea that Dr. Register in his inaugural address, "The Advantages of Medical Education," drives home with especial force. Step by step he shows the advantages to be derived from medical organization, the local society, the city and State societies, the national societies. He states in this address, and truthfully, that the only way the medical profession is to advance either as units or as a body is for the members of the profession to go to medical society meetings and report their observations and to enter into

the discussions and to print these observations both for the purpose of preservation as well as dissemination. The address is certainly of a high order of merit, and more than justifies the reason for the existence of medical societies. What one keeps to himself nobody else learns unless he falls upon it accidentally. The medical society makes this knowledge the property of the whole profession, to be incorporated into the mental equipment of each and every doctor if useful, or after sufficient testing and found wanting to be thrown into the medical ashpile. We congratulate Dr. Register upon the excellence of his address and the scholarly manner in which he has presented the advantages of medical societies.

THE CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. December, 1915. Published Bi-Monthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Paper, \$8 per annum.

This issue, as usual, is full of useful articles. Bone surgery, as in a number of the preceding volumes, occupies a large part of the number. Fracture, both old and new; joint surgery and handling of malignant growths of the bone receive especial attention. Besides a full discussion of these conditions, there are talks cicatrical fixation of ulnar nerve in its groove sequential to ancient fracture of olecranon process, release and transference of nerve to new site, resection of tip of olecranon, adeno-carcinoma of neck of the uterus, vaginal hysterectomy by Jacobson's method, undescended testicle, orchidopexy, carcinoma of maxillary antrum, etc. You are by this time acquainted with the scope of these clinics. If not, you should be. Each issue contains much you will find of practical value in your daily tasks.

Sexual Impotence. By Victor G. Vecki, M.D., Consulting Genito-Urinary Surgeon to the Mt. Zion Hospital, San Francisco. Fifth Edition, Enlarged. Philadelphia and London: W. B. Sanders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$2.25 net.

No greater calamity can befall a man than to come to a sudden realization that he is impotent. Consequently, impotency should receive the most careful study and thought of the profession. Instead of being a tabooed subject, this affliction should be openly discussed at medical meetings and in textbooks, so that any additional light that can may be shed in helping to overcome the condition. With the loss of potency goes the loss of love, and many a family has been broken up because the husband has been unable to supply the sexual appetite of his wife. This is a deplorable condition; in fact, there is no more distressing and baleful affection within the realms of medicine. And do not for a minute think that impotency is a rarity, for those who have given it thoughtful consideration say it is of frequent occurrence. Their experience proves that the large towns harbor crowds of persons who are

afflicted with sexual infirmities which throw a gloom over their existence. These are not confined to any age or any stratum of society, the wealthy and the poor being afflicted alike. At the dawn and eventide of life man is dependent on woman, and especially in his heyday is she an absolute necessity. Anything which thwarts this desire makes man gloomy, incompetent and moody; therefore, a subject which is of so much importance to mankind should receive the most profound consideration. The race, the nation and family happiness is dependent upon potency. Without it all would soon cease to exist. What problem, then, is more real than the alleviation of these victims. It is with this idea that Dr. Victor G. Vecki has issued the fifth edition of his work on Sexual Impotence. In doing so he has performed a distinct service to mankind, and thereby causes the run of the profession to stop, look and listen to this the most woeful affliction that could befall man. It is a book every member of the profession should read, digest and think over, for by helping one of these unfortunates to overcome his disability a life-giving service has been performed.

A Text-Book of Physiology. For Medical Students and Physicians. By William H. Howell, Ph.D., M.D., Sc.D., LL.D., Professor of Physiology in the Johns Hopkins University, Baltimore. Sixth Edition, Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Company. Cloth, \$4.00 net. 1915.

With the progress of time, physiology becomes daily rather more than less intricate. Therefore it is an extremely difficult task to present the varying shifts of physiological thought. Nevertheless, we believe that for student purposes Howell has once more shown his versatility by presenting the subject plainly, succinctly and conservatively. It is the underlying or basic principles that most concern the student, and Howell has handled this side of the subject with the same nicety as heretofore. The changed thought in the physiology of nutrition has made it necessary for him to entirely recast his material on this phase of his subject. Even here the contents are put in such a clear manner and accurately reflect the latest views on the subject. Maintaining, as it does, the same high standard of excellence of its predecessors, it will continue to reign supreme in this particular field.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. Dorland. Eighth Edition. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Leather, \$4.50. Thumb Index, \$5 net.

The eighth edition of the American Illustrated Medical Dictionary, by W. A. Newman Dorland, A.M., M.D., F.A.C.S., professor of gynecology, Post-Graduate Medical School, Chicago; fellow of the American Academy of Medicine, has been thor-

oughly revised, so that it is now right up to the minute. When its predecessor appeared in 1913 it was the last word in medical interpretation, but since that date so many new terms have wormed their way into medicine that it was found necessary to revise the previous work. This volume contains a new and complete list of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, nursing, veterinary science, biology, medical biography, etc., with the pronunciation, derivation and definition. It is impossible for a physician to get along without a dictionary. So it is up to him to decide which one meets his wants best. He will find this one better in this respect, and that one in another, but taking all in all, he will be more than pleased with Dorland's, and will not go wrong when purchasing it. It is attractively gotten up, of reasonable price, and contains, besides the material ordinarily found in dictionaries, much of an encyclopedia nature. It gives us great pleasure to again heartily endorse it and to recommend it to the kindest consideration of our readers.

International Clinics. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. Vol. II. Twenty-fifth series. 1915. Philadelphia and London: J. B. Lippincott Co.

International Clinics, as a glance at the partial cataloguing of the contents will attest, affords an easy method of keeping abreast of the times. What more can one ask than the cerebro-spinal fluid in diagnosis, the diagnosis and treatment of arterio-sclerosis, chronic habitual constipation—a practical consideration of its causes, results, and its rational treatment by mechanical measures, a case of cancer of the pancreas in a boy of nine years of age, with notes on other reported cases of cancer in children, typhoid and the psychoses, a consideration of some painful conditions of the foot, some remarks on gastro-intestinal surgery. The present issue is particularly rich in well-selected and timely topics. One would, however, be disappointed if such were not the case with each succeeding number as one comes to look for more than the ordinary in the Clinics after becoming a steady reader.

An Epitomized Diagnosis of Gastro-Intestinal Diseases. Jersey City: Reed & Carnrick.

This booklet as completely and concisely as possible covers the subject of gastro-intestinal disorders. It is nothing more or less than its title suggests—an epitome. Nevertheless, when one is in a hurry to obtain a digest of a specific malady of the gastro-intestinal tract, he can do so with the least expenditure of energy and loss of time by consulting this monograph. It embraces concise statements concerning the stomach, X-ray diagnosis of gastro-intestinal disorders, pyloric stenosis, cancer of the stomach, atony of the stomach, appendicitis, typhoid fever, right-side abdominal pain, bacillary dysentery, peritonitis and a wealth of other useful information.

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BALTIMORE, APRIL, 1916

MINERAL OIL IN CONSTIPATION.

SIR A. LANE of England has popularized the use of mineral oil in constipation to such an extent that it has now to a large extent supplanted other methods of controlling this fault of the alimentary canal. In discussing the employment of liquid albolene in constipation and obstipation in American Medicine, A. C. Geyser, M.D., of New York, states no therapeutic agent should ever be administered to a patient unless that agent is in perfect harmony with the physiological functions of the organ to be affected. Constipation and obstipation is not a disease, but a symptom of a perverted physiological function. There is no normal time exhibited for the passage of food residue through the digestive tract. It may be within the limit of normal physiology for an individual to have a bowel movement but once every five or six days; it is equally possible for another individual to have such a movement twice every 24 hours. Until, and not until, retention produces symptoms of toxemia or discomfort by mechanical distention should artificial measures be taken to evacuate the bowels. According to the author, the most common cause of retention is inflammation of the colon with a more or less temporary abeyance of the mucus secreting function of the mucous membrane. This mucus mixes with and softens the fecal matter, and covers the lumen of the colon, thereby facilitating the onward passage of the alimentary contents and prevention of injury

to the mucous membrane. When the stool is dry, not formed and not coated with mucus, a substitute for this substance must be found. Liquid albolene is the substance par excellence that lends itself as a physiological substitute for mucus, according to Dr. Geyser. When properly prepared, it is tasteless and odorless, does not undergo putrefactive changes, is not absorbed by the system, does not irritate the lumen of the gut, mixes readily with the feces, lubricates and protects the mucous membrane—in short, does just what should be done by the normal mucus, and nothing more. An oil intended as a therapeutic agent must be of the mineral variety to prevent its being absorbed. Consequently, a mineral oil must only be administered with the idea of lubrication. It has no other physiological action, as it is not taken into the system. To render it more palatable and agreeable to the taste a small quantity of an essential oil may be mixed with it. The mixture has the added virtue of causing contraction of the hollow viscera of the digestive tract. The oil should be of not too low a specific gravity, as it will then pass through the digestive tube without being held by the feces; nor must it be of too high a specific gravity, as in this event it simply acts as a lubricant in spots. The Russian oil was almost entirely employed for this purpose, until the great European War. At that time it was thought that this oil was the only one fit for the purpose, but that has been found to be a mistaken idea, any American oil of sufficient specific gravity and freed of all foreign material answering the purpose just as efficaciously. The experience of Geyser with American oils is indeed gratifying, as some one or other of these preparations are being extensively employed in the combatting of constipation. Certainly in the overcoming of functional stasis no simpler or better agent has been introduced than liquid vasoline, but physicians must not place too much dependance upon any case being of a physiological character until he has exhausted all means of accurately determining whether the tardiness of emptying the bowel is due to a mechanical fault. If the constipation is a result of loss of physiological tone, then undoubtedly mineral oil judiciously administered will be of inestimable value.

Medical Items.

The following physicians were appointed during the past week by Governor Harrington as coroners to the various stations in Baltimore: Drs. James K. Insley, Otto M. Reinhardt, F. Edward Smith, Walter L. Denny, Albert D. Driscoll, William T. Riley, James G. Wiltshire, Henry L. Sinskey and John J. Morrissey, Jr.

DR. WALTER E. DANDY, for several years one of the assistant surgeons at Johns Hopkins Hospital, has been appointed resident surgeon of the hospital, to succeed Dr. Roy D. McClure, who recently resigned to become surgeon-inchief at the new Henry Ford Hospital in Detroit, Mich. Dr. Dandy has made a special study of surgery at the Hopkins Hospital for nearly six years, and has had considerable experience in research work.

Two more members of the staff of the Johns Hopkins Hospital, Drs. Stewart Vernon Irwin, class of 1914, of Oakland, Cal., and Jerome Pierce Webster, class of 1913, of Plymouth, N. H., have resigned and will go to Germany to make a scientific examination of conditions prevailing at the great prison camps there. They will report to the American Red Cross head-quarters at the American Embassy at Berlin. Drs. Irwin and Webster will have access to the immense prison camps, where hundreds of thousands of British, French and Belgian prisoners are confined.

THE North Carolina Surgical Club visited the University of Maryland Hospital on March 2 and was present at special clinics held by Professors Randolph Winslow, Arthur M. Shipley and J. Mason Hundley, at which a number of important operations were performed, such as cholecystectomy, choledochotomy, hysterectomy and amputation of breast. Drs. Robert P. Bay and Fred Rankin also held clinics at the same time, but there was such an embarrassment of riches in clinical material that it was impossible for the visitors to see all that was offered them. Mr. Harry Warfield, manager of the hospital, served a delightful luncheon after the clinics. The visitors expressed themselves as being greatly pleased with their coridal reception and entertainment. They left in the evening for Pittsburgh, and will also visit Cleveland, Chicago and Cincinnati.

Arrangements are being completed for the commemoration of the twenty-fifth anniversary

of Dr. Randolph Winslow as professor of surgery at the University of Maryland. The celebration will take the form of a dinner at the Hotel Belvedere on or about the 28th of April. The committee on arrangements includes Drs. William P. Stubbs, chairman; Arthur M. Shipley, William Tarun, G. Milton Linthicum, Alexius McGlannan, Fred W. Rankin and Elmer Newcomer.

The Sixth Annual Health Conference of the Medical and Chirurgical Faculty of Maryland, in co-operation with the Maryland State Federation of Women's Clubs, conducting the baby welfare movement, was held at Osler Hall, 1211 Cathedral street, March 6-11, inclusive. There were a number of interesting and instructive lectures given relating to child welfare. A feature of the celebration was the exhibit of hundreds of posters made for the Better Baby Poster Contest.

DR. CHARLES A. WATERS, formerly of Govans, Md., desires to announce that he has opened offices at 1100 N. Charles street, Baltimore, Md., equipped for radiographic and fluroscopic examinations and for extensive X-ray therapy. The equipment includes apparatus for uretral catherization and stereoscopic pyelography; for Pirie's method of serial gastro-intestinal radiography; for upright and prone gastro-intestinal fluroscopy, and for teleroent-genography of the heart. Consultation by appointment from 8-9 A. M. and 5-7 P. M. Telephone, Mt. Vernon 5856.

At the meeting of the Baltimore City Medical Society, Friday, March 3, 1916, Dr. John C. Hemmeter read a paper on "The Value of Duodenal Feeding in the Preparatory Period to Gastric Operation."

Dr. Harry J. Moss, New York city, who was recently appointed superintendent of the Hebrew Hospital, to succeed Dr. Mason R. Pratt, resigned, has taken up his new duties. He was formerly assistant superintendent of the Mount Sinai Hospital in New York,

BIRTHS.

To Roades Fayerweather, M.D., Johns Hopkins Medical School, '03, and Mrs. Fayerweather, of Roland Park, March 11, 1916, a daughter.

RECENTLY, to Norbert Charles Nitsch, M.D., University of Maryland Medical School, '13, and Mrs. Nitsch, a son—Norbert Charles Nitsch, Jr.

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SOME REMINISCENCES, REFLECTIONS AND CONFESSIONS OF A LARYNGOLOGIST.*

By John Noland Mackenzie, M.D., Baltimore, Md.

In responding to the courteous and flattering invitation to be with you this evening, and in casting about for a subject upon which to address you, it has occurred to me that, instead of treating you to the arid narrative or perhaps profitless discussion of some of the unsettled questions which have divided laryngological opinion now and at other times, and upon which I, and not you, should seek enlightment, I would ask you to come and live with me for a few moments in another and an earlier time, in a distant day and atmosphere, in which the grown-up virile puissant laryngology of this great age of human progress was yet in its swaddling clothes. And if in doing so I shall become personal as well as reminiscent, shall give you a chapter out of my own life and my own experience, I pray you to be charitable enough not to misunderstand me, but let me believe that my words are not addressed to the unsympathetic and critical ear of strangers, but to a little circle of friends gathered around the family fireside, where I may talk with the freedom of one who is at home, and where I feel that to many of you at least I may speak, as the ancient Roman has it, "in loco parentis."

In the seventies and early eighties of the last century, the Hospital for Diseases of the Throat and Chest in Golden Square, London, was the Mecca of the vast majority of English-speaking students of laryngology, who came there attracted by the reputation and engaging personality of Morell Mackenzie, then at the zenith of his professional career. Whether they went for study elsewhere or not, sooner or later their footsteps turned to Golden Square, either for passing curious observation or more serious and continuous work. The institution itself was a model of simplicity, both in architecture and equipment. In secluded isolation, it stood in the little square in the narrow zone which separates the throbbing, restless, rushing life of the metropolis from the pov-

^{*}Address delivered at the College of Physicians, Philadelphia, at a meeting of the Philadelphia Laryngological Society, March 7, 1916.

erty and squalor of the slums, and in a silence broken only in the daytime by the roar of Regent Street, nearby. The lower floor of the building, where most of the work of the hospital was done. consisted of a very large waiting-room, it had to be large to accommodate the then largest laryngological clinic in the world. an examination-room of ample size, but simply furnished, which, in turn, opened into a very much smaller and more private one. which was consecrated mainly to physical diagnosis. more capacious apartment were tables and lamps for the attending surgeons and chief of staff. The upper floor was occupied by the in-patients, and was always full. It was amid these modest surroundings, in picturesque contrast to the princely apartments and imposing apparatus of some of our modern, up-to-date larvngological establishments, that many of the men who were destined to direct the after-progress of laryngology in Great Britain and America were not taught, but learned for themselves, the first lessons of their art. I entered on my duties as chief of staff in the summer of 1879. My predecessors in office were Felix Semon, Samuel Johnston of Baltimore and Lennox Browne. had qualified beforehand for the job, having acquired the principia of the subject in the old Metropolitan Throat Hospital in New York, in spare hours snatched from my service in Bellevue Hospital, and under the tutelage and inspiring example of my old friend, Clinton Wagner, one of the pioneers of the specialty in America and founder of the New York Laryngological Society. At that time, with all the enormous material at our command, there was practically no instruction given, except in the way of hasty demonstration of cases, and if the student or visitor learned anything, it was through close personal observation on his part, and not through any gigantic effort to impart knowledge on the part of the medical staff. With one or two exceptions, the latter directed their attention almost solely to the larynx and thyroid gland, and the nasal passages were only examined when in quest of a polypus or when the attention was irresistibly attracted to these organs by the horrible stench of an ozoena. The nasal cavities were practically neglected, and the only apparatus in the hospital for the treatment of their diseases consisted of a pair of forceps for the removal of nasal polypi, and a handball atomizer with a detergent solution for the treatment of ozoena or any other miscellaneous disease of the nose that might irresistibly obtrude itself upon the recognition of the medical staff.

I have said that we concerned ourselves chiefly with affections of the larynx and thyroid gland. Let me pass briefly in review our then treatment of some of these affections. Among our most frequent visitors to the clinic were cases of tuberculosis of the larynx. They literally abounded. They came by the hundreds, in striking and conspicuous contrast to the comparative rarity of this disease in the throat clinics of today. Many of them presented the classical picture first drawn by Morell Mackenzie, which we considered then pathognomonic of tuberculosis. It

should be stated here that the grouping of signs, turban epiglottis, pyriform aryepiglottic folds, etc., so graphically described by Mackenzie, was not considered characteristic outside of England. and I must say that in my own observation I have never seen such constancy in the ensemble or grouping of appearances, either on the Continent or in the United States. At that time much difference existed among larvngologists concerning the value of laryngoscopic diagnosis in this disease. Ziemssen was the first to deny its certainty, and subsequently Heinze, and even Morell Mackenzie, gave in their adhesion to his views. Lennox Browne, on the other hand, goes to the other extreme, or, rather, went to the other extreme, and declared that, with the exception of laryngeal growths, there is no disease of the larynx in which we may be so sure of laryngoscopic diagnosis. The partisans of both these views are too sweeping in their statements. There are many cases met with in practice in which the diagnosis must remain in doubt. I believe the case can be briefly stated as follows: The diagnosis of the lenticular ulcer, especially when single or unassociated with other tubercular lesions, is laryngoscopically impossible; even when the ulcers are multiple, and bilaterally situated on the cords or vocal processes, they can only be looked upon with suspicion in the absence of other signs of the disease. This same is true of the aphthous or diphtheritic ulcer. Even the ulceration which results from infiltration is not always typical in appearance, and may need the association of other tubercular lesions to proclaim its true nature. When infiltration in unilateral, the diagnosis is sometimes shrouded in doubt, except when multiple ulceration has taken place. The association of the turban-shaped epiglottis with the pyriform swelling of the aryepiglottic folds is characteristic of tuberculosis, and should not be confounded with edoema, its closest simulator. It should here be remembered, however, that edoema may complicate the case and cause uncertainty as to its real nature. When to the characteristic infiltration of the epiglottis and arvepiglottic folds is added the typical worm-eaten superficial serpiginous ulceration, the grouping in the picture is pathognomonic. The typical laryngeal tubercular ulcer resulting from infiltration, in its development, appearance and course does not resemble any other laryngeal disease with which I am familiar. The lesions of this-and this is true of many other diseases—may, of course, occur in atypical forms, the characteristic grouping may not be present, and the diagnosis may be left for awhile in doubt, but this does not invalidate the position that tuberculosis manifests itself laryngoscopically (in the larynx) in a manner different from any other known form of disease.

The subject may seem trite and superfluous, but I have introduced these remarks on the laryngeal picture in tuberculosis in order to emphasize the importance of the laryngoscopic or naked eye method of diagnosis (supplemented or not, as the case may be, by clinical phenomena) to the exclusion, if possible, of the

microscope and the laboratory in the detection of disease in the larvnx. In these days of unquestioning reliance on and faith in chemical and other strictly scientific, as contra-distinguished from purely clinical aids in disease discovery, it is in many quarters at least fast becoming a lost art. As the introduction of the modern, direct methods of examination have done away largely with much of the old-time manual dexterity in intra-laryngeal and tracheal manipulation, so the common use of laboratory tests have, by opening up a lazier and easier road to diagnosis, greatly dulled the former diagnostic sense and diagnosite acumen. To overcome this unfortunate condition of affairs in the coming generation, the student should be shown as many cases as possible of a given malady, in order that the picture of the disease may be so photographed on his brain and embedded in his memory that he may be able to recognize it by sight alone when brought before its image in the mirror. Take him back to the old-time initiative in diagnosis, teach him to rely more upon his special senses, tell him that, after all, personal observation and clinical experience are less fallacious than the more artificial, although more strictly scientific methods, even though the latter may be, in many cases, indispensable and in some ways more exact. It is only human to make mistakes. Let him not, therefore, in case of doubt, run to the laboratory at once for help, as is the rule in most cases today, but without in the least degree underestimating its inestimable value and assistance, let him seek it as the court of last resort. In other words, let him make the diagnosis with the naked eye alone; form his opinion in this way first, even though he may have to control it in the end by scientific tests.

The student should be schooled not only in the naked-eye appearance of larvngeal disease, but also in what is even more necessary—early laryngoscopic diagnosis. The supreme and far-reaching importance of the latter ought to be evident to intuition, and the very mention of the subject in a company of laryngologists should be looked upon as a piece of gross impertinence: and yet, unthinkable and incredible as it may seem, to many workers in this special field today, whose vision does not carry beyond the tonsil, whose horizon is the palatal arcade and whose ignorance of what lies beyond it, is as boundless as the deep, it is a neglected or even unknown accomplishment. A fellow-laryngologist, an excellent man and a good surgeon, who had wasted a number of years out of what might have been a wholly useful life removing tonsils and doing submucous resection, when asked by a brother practitioner about the laryngeal appearance in one of his cases, exclaimed, "Larynx! I know

nothing about the larvnx!"

It is impossible to exaggerate the importance of the laryngoscope to the medical and surgical diagnostician in the early detection of disease, not only in the respiratory organs themselves, but, of equal, if not superior importance, in neighboring and remote organs of the body. Long in advance of the appearance of classical signs and symptoms of disease in other organs it often

points the way to grave disorder.

Not to multiply examples, how often is such a seemingly innocent performance as a lame or staggering cord in an otherwise apparently healthy individual the early herald of the existence of some formidable affection, such as malignant growth, central nerve disease or aneurism, or a tiny moist or weeping ulcer on the vocal process or a vegetation in the inter-arytenoid space to the alert and practiced eye the telltale, though silent, witness of tuberculosis!

Every tumor of the larynx, no matter how benign it may appear, should be examined with the greatest possible care. Some of the most fatal diseases known to man make their first appearance in the larynx in the guise of great benignity. Thus the presence of cancer and tuberculosis in the individual is often first proclaimed by, the discovery of an apparently simple papillomatous excrescence in the larynx. By the careful study of every case coming under our observation we will some day, among other things, clear up the mystery which surrounds the genesis of papilloma and approach more closely with the naked eye alone the earliest possible recognition of some of the most

deadly diseases of the larvnx.

One day a man was admitted to my division in Bellevue Hospital with the diagnosis of typhoid fever, but who presented an appearance which I had never seen in that disease. Not knowing what ailed him. I called the resident medical staff in consultation, and the consensus of opinion was that, while his trouble was not such as had been diagnosticated, it was impossible to classify it, to give it a name, as none of us had ever seen its like before. Janeway was summoned. "Acute ulcerative endocarditis." In view of the fact that there were no detectable morbid heart sounds present, the diagnosis was a brilliant one, and was verified by autopsy on the following day. At that time the disease was practically unknown, certainly not generally known, on this side of the Atlantic. I had read somewhere an abstracted account of the affection, taken from a French journal, but had forgotten it. In the absence, apparently, of heart trouble, how could you possibly make such a diagnosis, he was asked. "I don't know, but I have seen a case," was his reply.

The local treatment (of laryngeal tuberculosis) consisted in the use of hot and cold soothing and stimulating inhalations, the insufflation of an opiate, generally morphia, followed by a mixture of iodoform and starch and the use of the oesophageal tube to facilitate deglutition, and our one consoling thought was that we had placed our patient in a condition in which he would suffer the minimum amount of pain and approach the end, if possible, with resignation and an equal mind. All were doomed to die; the appearance of the disease in the larynx was the warrant of death. We did not know then that some of the very worst cases could be saved. It was not until years after that I had the truth of this

latter statement brought forcibly home to me by the following case, which I take from several others quite as remarkable:

Mr. B., a small, important little man, with an iron will, came from a distant city to consult me before going West for his health. He had a good-sized cavity in the left apex; both ventricular bands were the seat of broken-down infiltration, the ulceration covering both surfaces completely and extending into the ventricles. There was marked infiltration of the aryepiglottic folds (pyriform swelling), which had, however, not yet ulcerated. Physically, he was in very bad shape; was very weak, and in no condition to undertake even a short journey. I advised him to return to his home, give up his business (that of banker) and live in the open air, and on no account to attempt his trip to the West. as he might never reach his destination alive. It was Seneca who said that it is a part of the cure to wish to be cured. Well. this little man wished to be cured, and cured at all hazards. And he therefore did not take my advice. The next time I saw him, two years later, his chest cavity had become obsolete, the laryngeal infiltration had disappeared, and the ulceration had completely healed. He had gone to Colorado, pitched his tent in the wilderness, lived in the open air, and, as far as possible, in silence and in solitude, and during the entire absence from home had taken no medicine, nor had he even laid eyes on a physician. Again, and against my advice, he returned to his former business. In six months ulceration broke out afresh in the larvnx. This time I told him to take the fastest express to the West. To make a long story short, I saw him 21 years after his first visit to me. He was perfectly well, and, apart from the scars in the larynx, no one would have known that he had ever been hurt. Remember, this was not a case which happened yesterday, or the day before, but long years before man had surrendered to nature the care of tuberculous disease.

Among the cases of general and laryngeal tuberculosis which presented themselves for treatment there were a goodly company of the variety of laryngeal neoplasm, which I have called in my classification of the laryngo tracheal neoplasms occurring in that disease, papillomatous excrescences, vegetations and tumors,

and which I have discussed at length elsewhere.*

As this form of tumor is yet imperfectly understood, as very little is still known concerning its histological nature, and in view of the fact that the determination of its essential character will have an important bearing on its treatment, I will again venture a word concerning it. These are the members of the second group, and are closely allied macroscopically to simple laryngeal papillomata, for which they are easily mistaken. They are the growths which every student learns to recognize in the alphabet of his special studies. They are often the avant courrier of laryngeal and pulmonary tuberculosis, and may remain for a long time as

^{*}Archives of Medicine, New York, October 1, 1882, and an unpublished paper read in this College in December, 1904.

the solitary outward and visible sign of that disease. Their presence in the interarytenoid fold often furnishes strong presumptive evidence of incipient tuberculosis. They vary greatly in size. shape and situation, sometimes projecting from under the anterior commissure of the larynx in the form and appearance of a spray of coral, at others filling the larvnx with growths macroscopically indistinguishable from simple papillomata, which are sometimes so abundant as to cause stenosis and necessitate tracheotomy. Their most characteristic seat is the posterior laryngeal wall, where they appear as warty acuminate or leaflike outgrowths of a pale grayish or pronounced reddish hue, or banked at that situation in a solid mound, either smooth in contour or bristling with multiple acuminate projections. The histology of this class of tumor has been imperfectly studied, and may well in the future bear a more careful scrutiny. Stoerck, who first called attention to their presence in the interarytenoid fold as an infallible sign of incipient tuberculosis, following Rokitansky, regarded it as the result of an indurated proliferation of the connective tissue which occurs in the course of chronic tubercular disease of the mucous membrane in the neighborhood of the arytenoid cartilages. Kundrat, who examined several of Stoerck's cases, pronounced them essentially papillomata and non-tubercular in origin. know of no other special observation on the subject, with the exception of the microscopical appearances of a case of my own. examined for me by Sydney Cone, then pathologist to the surgical department of the Johns Hopkins Hospital, many years ago and reported to the oto-laryngological section of this College in December, 1904. I have not time to go into a detailed account of the anatomical report. Suffice it to say that in the sections examined the picture was that of a tuberculosis of a papillomapapillomatous tissue infected with tubercular tissue. Whether or not the growth is originally tubercular or becomes so secondarily through infection is a point to be determined by further observation. Without going into explanatory detail, the study of the sections developed facts which were not only of histological, but also of eminently practical importance. It was especially interesting from a diagnostic point of view in the microscopic differentiation of this form of outgrowth from the papillary variety of epithelioma, particularly when as sometimes happens the tubercle bacillus is only found after a diligent and prolonged search. It also went to show that incomplete attempts at removal only served to stimulate the local growth of the neoplasm and increase the danger of reinfection. It will be the task of the future to determine whether all growths of this nature found in a tubercular subject show a tubercular structure, or whether there are some that adhere to the strictly papillomatous type. Whether benign or tubercular, the very fact that this variety of tumor often heralds the approach or proclaims the presence of tuberculosis in the individual only emphasizes the importance of examining with care not only clinically, but microscopically, all

papillomata taken from the larynx and trachea. With regard to their mode of development, it is quite possible, as Cone has suggested, that in some cases at least they may have an origin analogous to the papillomata found in the uretha and vagina, which are probably produced by infection by the tuberculous dis-

charge from the bladder and uterus.

This variety of outgrowth was always looked upon as perfectly legitmate surgical prey. I have often removed the entire tumor or portions of it, calmly and utterly innocently oblivious of the fact that I was in so doing stimulating its local growth and scattering the disease elsewhere, thus shortening the journey of the patient to the grave. Looking back through that night of meddlesome, though innocent surgical transgression, as I view it in the long experience of after years, and fully mindful of the fact that the universal sentiment of authority counsels immediate surgical removal of all growths in the larynx of the tubercular subject, I must confess that even now I approach the consideration of their treatment with great trepidation as I give you the advice, which I gave in this College, but before another society, over 12 years ago. The mere presence of a tubercular tumor in the windpipe is not always necessarily an indication for its removal. If an operation is to be done, it should be done for good and sufficient reasons, and after weighing carefully all the facts in each individual case. Tubercular tumors of the larynx, as far as we at present know, pursue a slow course, show little tendency to early ulceration and may survive with unbroken surface the process in the lung. In their removal by ordinary methods the possible dangers of autoinfection, with metastasis and reinfection at the seat of operation, should not be lost sight of. That these dangers are not chimerical is apparent from some of the recorded literature of the subject, and notably in the case of Hennig, in which death from reinfection took place 37 days after the operation. In my own cases, two were found post-mortem, two were already past all surgery, while the fifth remained with unbroken surface for 10 years, and was not touched with instruments of any kind. Serious interference with function should, of course, constitute ground for operation, and the character of the latter will depend on the nature of the case. Whatever method of procedure is adopted, it must be radical and include not only the removal of the growth in its entirety, but also a liberal portion of the surrounding healthy tissue. A closer study of tubercular tumors of the larynx will be necessary before we can formulate a definite plan of surgical treatment. In the meantime, we must watch and wait.

Out of all the joyous hours at Golden Square that still linger affectionately in my heart and in my recollection, there comes to me but one disturbing and discordant memory—our treatment of cancer of the larynx. This consisted, I shudder in the telling, in the performance of tracheotomy, and the subsequent removal, piecemeal, of the growth through the natural passages.

By this process, which today in enlightened surgical communities would be considered as a means of slow murder, the growth was stimulated at once into much greater activity; the patient naturally became worse and worse, and was sent to his long home much earlier than if he had been left severely alone. Of course, there was never a thought of cure. The patient was passed around from surgeon to assistant, and from assistant to student, each in his turn removing fragments from the larvnx. One of the visitors to the clinic said, on one occasion, of a case thus maltreated, "Look at the poor devil; he has been plucked at by every expert and tyro in the place!" Naturally, the more the forceps were used, the more desperate became the plight of the patient. These were in very truth the days of frightfulness in the management of this disease. As I have often said since then, when I look back through the years in which I have seen cancer of the larvnx maltreated, and in which I have unconsciously maltreated it myself, I am simply appalled at the retrospection. With the accusing voice of those days of sacrifice and slaughter still ringing through my mind, and in full view of the chastening experience of succeeding years. I trust that in the long and bitter fight that has raged around the treatment of cancer of the upper air tract during the last two decades I have at least in part atoned for the sin of my youthful experience, although I have been held up as a still greater transgressor for demanding in all cases of larynx cancer the most radical measures, and for keeping hands off the growth until the last. Just here permit me to correct a wrong impression that seems to have been created in the minds of some of my colleagues both at home and abroad as to my views on microscopic evidence in the diagnosis of suspicious looking neoplasms of the larynx. According to my critics, I reject completely the use of the microscope in the diagnosis of malignant growths of the larynx, and therefore would recommend the complete operation for that disease in the presence of doubt as to its nature. As one of them puts it, I "kick the microscope into the dust heap." No one but a congenital fool would refuse in doubtful cases the aid of the microscope, and no one outside of an asylum would advise a radical operation (such as the one suggested by me) without a certainty of diagnosis. There are some things that go without saying and which ought to be obvious to the dullest apprehension, and I cannot think that anyone who knows me can believe me guilty of such insanity. My original remarks made in 1900, which have called forth such a storm of abuse and misrepresentation, dealt in general principles of diagnosis, and no attempt at elaboration or specification was made. My position, as then stated, is simply that the microscope should be the court of last resort—the final method of appeal. Hands off the growth until Then, if microscopic examination is necessary, let patient and surgeon be prepared for immediate operation. As I said on the occasion already referred to, "before resorting to thyrotomy as a diagnostic means in general, especially if a portion of the growth is to be removed for examination, it should be clearly understood beforehand with the patient that, if the disease should prove to be cancerous, the surgeon shall be at liberty, if in his judgment it seems best, to proceed at once to operation." I took this stand in order to check, if possible, the reckless and indiscriminate removal by laryngologists of suspected tumors of the larynx for microscopic examination, and from what I hear and read I may be pardoned if I say that the warning has not been

given in vain.

As these remarks are devoted to reminiscence and confession. and not to controversy, a discussion now of the subject would be entirely out of place. As I leave it, let me turn to the last words on larynx cancer by Butlin, the inspiration and leader of the English school, uttered not long before he died. "I wish I had begun to perform it (laryngectomy) earlier. I am sure that several of the cases in which I performed thyrotomy were much better fitted for laryngectomy, and I cannot help thinking I might have saved one or two of the patients in whom recurrence took place if I had then removed the larynx. I think the glands ought to be removed in every case in which there is extensive carcinoma of the larynx, even if it be intrinsic, unless the disease is limited to the middle zone of the interior of the larvnx. Even in these cases it would probably be a wise precaution to remove the glands. I have never removed the glands and the larynx at one sitting.

Catarrhal affections of the larynx were treated with inhalation, insufflation, and topical applications were made to that organ with the camel's hair brush, the use of compressed air being then unknown in England. Our main reliance was on the salts of zinc. the chloride and the sulphate in simple, and the sulphate of copper in syphilitic laryngitis, and I may say in passing that there are few, if any, agents that surpass in efficacy in simple inflammation of the larynx these preparations of zinc, which are among our oldest and most trustworthy servants in the treatment of this class of affection. Among the ward formulae in Bellevue Hospital was one which we greatly relied upon in the treatment of venereal warts, and which consisted of a solution of sulphate of zinc in spirits of lavender. When this was applied to the growths, they vanished as if by magic. So striking was the astringent effect that when I started in practice I had a more elegant preparation of the zinc salt made, which I have been using successfully ever since.

Comparatively little was known at that time of affections of the thyroid gland. All cases were alike to us—all were goitre. The treatment consisted either in drawing a seton through the tumor or embedding in its substance a dart of zinc shaped like the point of an Indian arrow and inserted into the body of the growth through a liberal opening with the knife. Profuse suppuration was thus set up, which after a lapse of more or less time, and after much inconvenience and suffering, caused, or did

not cause, dimunition in size or virtual disappearance of the growth. A photographic album was kept in the clinic with life-like pictures, which preserved the images of the patients in the

various stages of their martyrdom.

Turning now to diseases of the nose (rhinology), we find that. with the exception of polypus and ozoena, it was practically a closed book. Even with deflection of the septum (can you think it?) we had no concern. The same was true of the accessory sinuses. In the second volume of Morell Mackenzie's classical work, published as late as 1884, in the section on nasal diseases, the subject is not even mentioned. Even the antrum was overlooked, in spite of the fact that centuries before, Drake and Cowper, and the two Meibomii (father and son), had lent their influence to the necessity of the investigation of antral diseases, and to the surgical methods for their relief. And Palfyn, in the seventeenth century, had called attention to frontal sinus suppuration, and proposed the trephine for its cure. All that I knew about the sinuses was contained in an article by Sir William Hamilton in the *Medical Times*, 1845, and familiar to me in my college days through its reproduction in an appendix to his wellknown work on Metaphysics. In this curious contribution he sought to combat the dogmas of phrenology by showing, among other things, that the frontal sinuses were the natural abodes or hiding places of many different kinds of worms and other low forms of life.

The motley multitude of its guests might almost tempt us to

regard it as

"The cistern for all creeping things
To knot and gender in."

Much confusion existed in those days of the sixteenth and seventeenth centuries as to the source of purulent discharges from the nose, some considering them all of cerebral origin, others declaring that those which were not attended with fever, headache or pain elsewhere, and from which the pus flowed from the nostrils without inconvenience to health, as in a suppurating ear, came from what was known then as the pituitary sinuses. thanael Highmore, who wrote at that time, and whose name has been preserved from oblivion by his graphic account of the antrum maxillare, did not help the existing confusion much when he declared that the ostium maxillare which he described and depicted, was an immisary, and not an emmisary, foramen of that cavity. Hence those who followed him described pain in the teeth and caries as due to a "humor distilling from the head into the antrum of "Highmore," thus getting the cart well in front of the horse. Let me remind you here that in the ancient Greek systems of medicine all nasal discharges, whether catarrhal or suppurative, were supposed to come from the brain, through the cribriform plate, ethmoidal and sphenoidal cells, according to Hippocrates; from the pituitary gland and ventricles, according to Galen. These views of the Greek physicians, whose notions of the etiology of disease were curiously influenced by the prevailing philosophical doctrines and vagaries of their time, were followed by the Arabian school, and were imported by them into Europe. and prevailed on the Continent as late as the seventeenth century. when they were completely overthrown by the colossal labors of Conrad Victor Schneider, whose wonderful anatomical picture of the nasal mucosa led Haller to christen it the Schneiderian membrane. It is true that Van Helmont had long before assailed with pitiless satire the "gray-haired dreams of the Grecians"; that Cardan had previously shown that the discharge came sometimes from the secreting portions of the nasal membrane, and that Botal had entered an anatomical protest against the hypotheses of the ancients, but it is chiefly due to the exhaustive anatomical researches of Schneider that their absurdity was demonstrated. Schneider's demonstrations imparted a great impetus to the study of the anatomy and surgery of the head. Morgagni laughed at Highmore's blunder, but conspicuous among the surgeon anatomists of his day it was William Cowper, who was the pioneer, and who shed most light on its differential diagnosis and treatment, and made sinus suppuration give up the secret which it had kept so long.

But in spite of the fact that the subject had a literature running back to remote or even ancient times, it was not until the great grippe epidemic in the declining days of the century that has recently passed away that man first awoke to the full realization of what a curse his sinuses had been to him (and he, too, all unconscious of the fact) throughout all the centuries that had gone before. At that time, while we had made great advances in technique, while the dawn of a new era in this class of affection was breaking, it must nevertheless be confessed that we followed

very closely the teachings of our masters of long ago.

In 1894, at the Congress of American Physicians and Surgeons, the subject of accessory sinus disease was given prominent place, for the first time in this or other countries, before a general medical and surgical audience of the entire society. Bosworth, Bryan and I were assigned to the task of opening the debate. The following year the first international discussion of the subject of the surgery of the sinuses was held in London at a special and unusual session of the British Laryngological, Rhinological and Otological Association. Those who took part in it and gave their views and experiences were Bosworth, Luc, Delavan, Moure, Lennox Browne, Daly, Mayo Collier, DeRoaldes, Dundas Grant, Krause, Bryan, Bark, Sajous, McIntyre and Stoker. For some inscrutable reason I was asked to open the debate. The remarks of those who followed me were most instructive, and for that day a fairly thorough exposition of the then status of the question. I mention these two occasions, for they were among the early signals for the onrush of the coming events in this special department of surgery, which had already cast their shadows

before. The ball had started to roll, the pot had commenced to

boil; the worst was yet to come.

No, I shall not disturb the tonsil question. God forbid! am down in cold, remorseless type in many places on that subject, and even if I wished to run away from my convictions, I would have no avenue of escape. I only want to say that those far-off days at Golden Square were perhaps the tonsils' happiest and most halcyon time; for it had not then been found out that the germs of a multitude of diseases common to man left well-established, convenient and natural avenues of entrance into the body to seek their destination by other and more devious paths through the tonsil substance; nor had this invading host of pathogenic visitors, some well known, others nameless and nondescript, yet found in the tonsil crypts and in the tonsil vessels either a birthplace or an asylum. They fell; yes, fell as leaves in Vallombrosa. Not a day passed that did not take its bloody toll of tonsils. The guillotine was nearly every day much the busiest instrument on the job. In all that long roll of cases I fail to recall a single serious accident after tonsillotomy, except now and then severe hemorrhage; nor have I even seen since then the operation done with more dexterity and thoroughness. If the surgeons of those days did not do as much far-reaching good as the tonsillectomist of the present time, they certainly did infinitely less harm.

One of the strangest things in the early development of rhinology in England and America was the slow and belated perception of the importance and significance of the condition falsely known as adenoids. Although over 10 years had elapsed since the publication of Myer's work on the subject, and although two years later it had been translated into English in the transactions of the Medical and Chirurgical Society of London (1870), very little attention was given to it in the clinic. Woakes and I operated on a great many cases. Woakes wrote a paper in which he maintained the papillary nature of the growths against the generally accepted belief that they were glandular or adenoid in structure. We never knew our mistake until French had to tell us that they were neither papillomatous nor adenoid, but lymphoid in character. Woakes was an interesting personality, with original, but often erroneous, theories. His work on "Necrosing Ethmoiditis," while pathologically hopelessly wrong, served to first rivet attention on the study of ethmoiditis, and was therefore historically the beginning of the modern literature of that affec-

tion.

In looking back to the old days in London, allow me to recall yet another experience, which to me at least has a certain historical interest. One morning I received a visit from a friend and fellow-lodger in the house in which I had, as the English say, "chambers." He was a phlegmatic Dutchman, a born linguist (spoke seven or eight foreign languages fluently), a globetrotter, an observer of a most inquiring and eager mind. He had come to consult me about a coryza which invariably and only occurred after sexual indulgence. I told him that he must be dreaming, or that he must catch cold during the sudden cooling off process following the heat of tempestuous bodily exertion. Not at all. He did not get unduly excited at the time. On the contrary, he was more or less indifferent to coitus, but practiced it one day a month as a physiological duty (or purge), as a matter, as it were, of personal hygiene. It was a part of his philosophy. One night during the month coitus, the following

morning always coryza.

The situation was unique, interesting, absolutely new to me and others to whom I told the tale. Shortly after this experience I stumbled quite by accident in the clinic on two women who complained of stoppage of the nose, sneezing and watery discharge, occurring only during the menstrual period. Not to delay you with a longer recitation of the circumstances in the case, without a guide, in an absolutely unknown territory, coming across an observation here and there and ever on the alert and looking for cases bearing on the subject myself, at the end of five years I had accumulated enough material from which to generalize and publish my conclusions, which I did in the American Journal of the Medical Sciences for April, 1884, in an essay which was the first attempt to reduce this curious relationship to a scientific basis. This, then, is the simple story of the almost accidental discovery of a then unknown physiological relationship which today has an enormous literature. Two years ago I received from Germany a work by the younger Seifert, which consisted of a critical review of nearly 300 brochures, theses and papers on the subject, and even this list of contributions was incomplete.

From London I went to Munich, where I became an assistant in the clinics of Zeimssen and Oertel. Zeimssen was a prolific writer, but is chiefly known to laryngologists as the author of the articles on diseases of the larynx in his well-known Encyclopaedia of Medicine. Oertel wrote little or nothing on laryngology, but his articles on the physics of laryngoscopy were the most scientific of his day. Zeimssen, a tall, distinguished patrician type of man of advanced years; Oertel, a little hunchback dwarf of middle age, but whose face was intelligence itself, and whose eye was as piercing as the Roentgen ray. Both masters of in-

ternal medicine, both experts in larvngology.

Although a comparatively small town, the wealth of clinical material in Munich was enormous. I have never seen in a given period of time, not even in the vast clinics of London, such a number of laryngeal growths, nor have I ever seen them removed with greater skill. They came to Oertel from all parts of the Continent, and the little man, even in the most difficult cases, always made good. For the student the atmosphere was ideal, the combination of special and general work perfect. At one moment we were giving cold baths or packs to typhoid patients, in the next removing a laryngeal growth. The special branch of medicine was not studied apart, but kept in contact and closest

touch with all the other departments of medicine. We could not get away from any one part of general medicine even if we wished to do so, and this leads me to say that the proper time to lay the foundation for the educated specialist is in early life, in his early studies, if possible in his undergraduate days, for it is at this period of his medical training that he is in the best position to acquire that fundamental knowledge, and, what is of more importance, that breadth of mind which is so essential to his future development. At this receptive period of the development of his mind he can best recognize the limitations of each special branch of medicine, and can best be taught to generalize profoundly not in one, but in all departments of medical thought. It is at this stage of his career that it is impossible for him to cut loose from the other departments of medicine. The growth of his special studies goes on pari passu with his advance in other lines of work, and he is brought in daily contact with disease in other organs of the body. He learns at the outset that no department of medicine is isolated and independent, but that they are all mutually dependent and co-ordinate. And if he is made of the proper stuff, this fundamental lesson and illuminating first impression will follow him in his special work in after life as an inspiration and a guiding star.

Those days in Munich were halcyon days. I thank my stars that I lived and learned in the older Germany, before that nation had altogether ceased to be the dreamer that she was when she entered the modern world; that I heard her music and listened to her songs in the joyous, peaceful days of the Lorelei, and not in those of the Hymn of Hate; before the departure from simplicity and simple idealism of the lovable people who gave

the world Santa Claus.

Later, when I studied in Vienna, I found a different atmosphere. Here the only means of acquiring special knowledge of the subject were the imperfect courses on diseases of the larynx given by the professors and their assistants. There was no special course in rhinology, which subject, as in England, was left entirely alone. Stoerck and Schroetter were the leaders in laryngology at that time. The former, although handicapped somewhat by his method of examination, the so-called Schusterkugel, and a trembling hand in manipulation within the larynx, always delivered the goods. Chiari, then assistant in pathology, now professor in Strassburg, had charge of the department of pathology in the Rudolfspital. He had five young men to help him in the laboratory, three of whom were Americans—Councilman, now of Harvard; Belfield of Chicago, and myself. It was one of my duties at the autopsies to look after the condition of the larynx and trachea, so that when one morning the body of a man who had died of cancer of the stomach was brought in for a post-mortem, I was handed the windpipe for examination. Secondary cancerous deposits were present in the liver, kidney, spleen and other organs.

The lungs, however, contained tubercular cavities; the pharvnx, larynx and trachea were free from inflammation and ulceration. The bronchial and retrotracheal glands were enlarged, tumefied and caseous. In the membranous posterior wall at its junction with the cartilaginous framework of the trachea, about 1½ cc. above the bifurcation, was a well-defined circumscribed tumor about the size of a small bean, its long axis parallel with that of the trachea, and of a uniformly even, smooth appearance. It was covered by the mucous membrane of the trachea, and was dense in consistence, giving to the touch the sensation of a hard cancerous nodule, for which, indeed, it was mistaken. A similar growth was found in the pericardium. The microscope revealed a picture for which I was not prepared. It showed, namely, that the tumor, which seemed to have its origin in the submucous connective tissue, consisted in the main of an aggregation of distinct tubercular nodules, set in a more or less well-marked vascular network of connective tissue. The majority of the tubercles lay in the deeper portions of the mucous membrane and in the submucous tissue. A few were more superficial, lying under the epithelium. They exhibited all grades of degenerative change; in some caseation was so far advanced that nothing remained but the cellular wall. Between the individual nodules the connective tissue was hypertrophied and the seat of a moderate amount of round-celled infiltration, which had invaded the glandular follicles in its vicinity. The tissue of the trachea in the immediate neighborhood of the growth presented no remarkable change. The nodule in the pericardium showed the same histological structure that was found in the tracheal neoplasm. Shortly after this experience I came across a similar case, in which the tumor was confined in a most unusual way to the vestibule of the larynx. The subject from whom the growth was taken died of pulmonary tuberculosis. The whole upper compartment of the larynx, including the epiglottis, aryepiglottic folds and ventricular bands, presented a remarkable appearance. It was completely covered by little mounds, which represented small, uniformly smooth, dense, moderately hard nodular growths, which lay beneath the mucous membrane. The nodules were about the size of a split pea, each merging into its neighbors, so as to form one continuous growth. The process ceased abruptly on either side at the free border of the ventricular band. There was no trace of ulceration in pharynx, larynx or trachea. Microscopic examina-tion of numerous sections of the growth showed it to be of the same nature as the above-described neoplasm in the trachea. These two cases were absolutely unique. Chiari had never seen anything like it before; no one had even suspected the existence of such a condition. After over a year's search through literature for similar cases, I published my own in the Archives of Medicine, New York, for October 1, 1882. As much confusion still exists as to what constitutes a true tubercular tumor of the windpipe, I may be pardoned for again drawing attention to the

subject. Since the publication of my own, cases have here and there found their way into medical literature, some without doubt examples of true tubercular tumor as defined in my original article, whilst others—and these are probably in the majority—are extremely doubtful in nature, and must be thrown into the category of localized infiltration or into the papillomatous group, which I have already considered. A true tubercular tumor is extremely rare, and by true tubercular tumor I mean not simply any localized swelling containing the bacillus, but a distinct, definite characteristic tumor formation covered by unbroken epithelium and consisting of a congeries of miliary tubercles set in a vascular network of connective tissue and exhibiting all grades of tubercular degeneration to cavity formation. I have seen but three cases in which the diagnosis was microscopically established beyond a doubt, and two in which no histological examination was made. As far as my limited experience goes, the tendency of this form of tumor as well as the papillomatous variety is not toward ulceration unless tampered with by incautious attempts at instrumental removal. In one case, in which the patient made a gallant fight for life of nearly 10 years and finally succumbed to pulmonary hemorrhage, the growth, which consisted of a small, smooth lobular tumor in the interaryitenoid fold, during that whole period, beyond a slight increase in size, remained practically unchanged. These two cases are of historical interest, inasmuch as they are the first cases on record of tumors of any kind in the windpipe shown microscopically to be tubercular. They therefore represent the earliest exact knowledge of this form of tuberculosis, and are the first to establish the separate existence of this previously unknown phase of that disease.

As in London, so in Munich and Vienna, no attention was paid to the nasal passages or accessory sinuses, and therefore no courses on the subject were given. I had to turn my steps homeward to learn something about the diseases of these organs. Here, too, I entered a practically untrodden field. The subject holding the center of the stage and overshadowing every other at that time was the surgery of the turbinated bodies, and especially the inferior, in the treatment of the hypertrophic form of rhinitis, and the operation engaging most attention was the removal with the cold wire snare of the posterior hypertrophied end of the inferior body for the relief of that condition. Although these masses were probably removed again and again with the wire, as anyone can convince himself by referring to the standard surgical works of the last two centuries, their true anatomical significance and relation to nasal inflammation was not properly appreciated until Bigelow demonstrated the erectility of the tissues concerned in their development. As I have pointed out elsewhere.* Bigelow was not the first to show the erectility of that

^{*}Boston Medical and Surgical Journal, January 1, 1885.

structure, but to him, apart from independent discovery, belongs the credit not only of giving the best description of this tissue, and of more accurately defining its minute structure and extent of distribution, but also of showing that the so-called mucoperiosteum of the posterior part of the septum is in reality an erectile substance. Bigelow was also the first to observe the alternate inflation and collapse of these bodies, which he compared to that of the lungs of a small animal, thereby leading the way to the rational interpretation of nasal inflammation. From their resemblance to the cavernous bodies of the penis Bigelow gave them the name of turbinated corpora cavernosa, but as Henle and, more recently Zuckerkandl, have pointed out, they may be with more propriety classed among the contractile as contradistinguished from the erectile tissues.

The credit of urging the necessity of their removal by the cold wire snare belongs to Jarvis. Prior to that the galvano cautery had been used in this country and Germany. In the latter country it was extensively adopted, and it is a noteworthy fact that Zaufal, who is an enthusiastic advocate of the cold wire snare in the removal of polypi, recommends the cautery for turbinated hypertrophies. Jarvis was followed by Bosworth, who wrote enthusiastically upon the subject. I wrote about it, everybody wrote about it, and everybody operated. One of my colleagues said that, on leaving my office one day, he trod on what he thought was a lot of peanut shells, but on picking some of them up he found that they were turbinated bones. The operation in the course of time was abandoned. The operators went to the other extreme, as in the case of all surgical crazes. The operation, however, within proper limits did much good, for the following reasons: In cases suitable for it, it fulfilled in a simple and radical manner the removal of the obstruction, and it did this without interfering with the normal air currents in their curvilinear course through the middle meatus, as that avenue and the anterior portions of the passages remained unchanged in their anatomical relation, thus preserving intact normal respiration and natural filtration of the air. As the hypertrophied mass meant tissue largely deprived of function from the loss of glands and blood vessels, their absence involved no sacrifice of physiological usefulness, while their removal not only facilitated cleansing of the posterior nares, but also diminished apparently the amount of tenacious mucus which they contributed to the nasal discharge. It also seemed to relieve the collateral congestion in other parts of the cavernous structure. Finally, in some cases it caused the complications of so-called reflex character to disappear, especially cough and asthmatic breathing. is easily understood when we reflect that it is this portion of the reflex sensitive area of the nose that is most responsive to reflex producing impressions, notably those concerned in the production

of cough and asthma.*

The simple removal of the posterior end, leaving the rest of the structure intact, is a safer and much more rational procedure than the wholesale destruction of the turbinated bodies, which is the routine practice so common at the present day of those who forget that the aim of nasal therapeutics is preservation of function, and not the destrucion of everything in sight. Let me repeat in this connection what I have said upon another occasion:

No one questions the frequent necessity of the complete or incomplete sacrifice of the middle turbinate bone, notably in the case of accessory sinus suppuration and the radical cure of tumors of the nasal and accessory cavities, and, in occasional cases, as a substitute for operation on the septum. But to make it responsible for a host of woes unnumbered, and to attack it surgically from a purely theoretical standpoint, is vicious both in principle and practice. Especially preposterous is its removal for the alleged cure of the disease falsely called hay fever. In dealing with this structure, it should always be remembered that its anterior end is one of the chief buttresses against the admission of foreign matter to the air passages, the principal point at which filtration of the external air takes place. It should, therefore, not be assailed on indifferent and insufficient pretext, or sacrificed on the altar of fantastic hypothesis.

One of the most interesting, if at the same time one of the saddest, chapters in the books of rhinology is that which tells the story of the surgery of the septum. In the early days of my special practice, comparatively little had been done to radically and satisfactorily remedy abnormalities of that structure; observers busied their brains with the burning question whether the deflected septum is turned more frequently to the right than to the left, never concerning their faculties with the remedial

^{*}The effects or sensations produced by irritation of the nasal mucosa, whether by mechanical, simple tactile or electric contact, chemical or thermic agencies, or by a pathological process, are more correctly appreciated and located in the anterior than in the posterior portions of the nasal passages. The more we recede into the deeper regions, the nearer we approach the pharynx, the more vague and indeterminate and inexact are the messages which stimuli carry to the central nervous apparatus. Thus, for example, in stimulation of the lower and posterior portions of the nasal cavity the sensation of irritation or hurt is, in many cases, referred not to the nose itself, but to the larynx, and in some instances to bronchial tubes, producing in the one case cough and in the other bronchial wheezing. This is not only experimentally but clinically true. Now in calling attention many years ago to a special sensitiveness to certain reflex producing impressions in the nasal mucous membrane, I did not, nor do I now, as has been wrongly inferred, desire to maintain that pathological reflexes may not originate from other portions of the nose, for wherever there is a sensitive nerve filament it is possible to provoke a reflex movement.

My contention is simply this: that the area indicated in my original paper represents by far the most sensitive portion of the nasal cavities, and that pathological reflex phenomena are in the large majority of cases related to diseased conditions of some portion of this particular area is a preposterous proposition which I do not and never have maintained. Whether a special sensitiveness in certain portions of the nasal mucous membrane exists or not, the agitation of the question has led to more rational methods of procedure in the treatment of a large class of nasal affection and to more conservative methods in intranasal surgery. Before the location of the sensitive area or areas, the nasal tissues were destroyed with an almost ruthless recklessness that bade fair to bring intranasal surg

aspect of the subject, and in the presence of that overshadowing conundrum the treatment of the condition was lost, while many followed the ancient advice of Marcus Aurelius Severinus, who declared that, inasmuch as the distorted septum was doubtless placed in that position by the will of God, it would be eminently sacrilegious to interfere with such conspicuous manifestation of Divine Dispensation, and therefore it should be left severely alone.

The measures then in vogue were the Blandin artificial perforation, a mischievous and lazy performance; the Adams' operation, the forcible restoration of the septum to the middle line with forceps, a very unsatisfactory and clumsy undertaking; stellate fracture, commonly known as Steele's, and later as the Asch operation, and the saw. Let me stop right here to do a dead man historical justice. The principle involved in the stellate fracture originated with James Bolton of Richmond, Virginia, who many years before described his method of procedure in the *Virginia Medical Monthly*. Bolton first employed an ordinary pair of button-hole scissors, with which he made the stellate incisions. Subsequently an instrument was made for him by Tiemann of New York, and from this developed the apparatus used at the present day.

Later the introduction of the surgical drill, first driven by the dental engine and afterwards by electric power, marked a decided advance in surgical procedure. With the arrival of other and newer methods this excellent agent fell into underserved neglect, in spite of the fact that a variety of work, and delicate work, can be successfully done with it without interruption of the duties of

the individual, and without disagreeable after-results.

But in spite of these improvements in the surgery of the septum there were cases which still baffled the most ingenious methods. This was particularly true in regard to irregularities in the conformation of its bony framework, as in certain cases of deepseated deflection in which the patient would not submit to operation or the surgeon hesitated to perform it. To overcome this difficulty I proposed in 1882, at the annual meeting of the Virginia State Society, and carried out in the spring of the following year, 1883, an operation which consisted essentially in the removal of portions of the external wall, and notably the inferior turbinated bone of the obstructed side (or portions thereof) as a substitute in suitable cases, for operation upon the septum itself.*

The method is applicable in cases in which sufficient reason exists for not operating on the septum. Its principle may also be extended in its application to other surgical procedures within the nasal passages. Its chief value is in certain exceptional cases in which other methods are contra-indicated or can be carried out

only with difficulty.

Since my original article was published, I have received several communications from various laryngologists in this country, notably from the late Jarvis, and Roe, of New York, in which they have stated that the principle had not only given them great

^{*}On Removal of the Inferior Turbinated Body of the Obstructed Side as a Substitute for Operation on the Deflected Sæptum in Certain Cases. *New England Medical Monthly*, 1884. IV, p. 249.

satisfaction, but had also extricated them on more than one occa-

sion from great difficulty and embarrassment.

The crying need in operation on the septum is greater simplicity of performance. With a comparatively speaking small armamentarium, backed by a *quantum sufficiat* of good, common, surgical horse sense, the surgery of the septum is not a complicated problem, but one which can be worked out with comparative

simplicity and satisfaction.

Such was the state of the question 33 years ago. You know its subsequent history. I will not, therefore, carry you any farther into paths which are perfectly familiar to you, and will leave you now with this brief review of the older methods, bidding you remember that it is a long, long way from button-hole scissors to the complicated technique of submucous resection, and asking you to graciously accept this little bit of personal experience and reminder of what we had to contend with in the earlier days from one who has traveled through the dust and heat of that road.

At a banquet held several years ago by the American Laryngological Association, the toastmaster, Kelly Simpson, in calling on Bosworth for a speech, said that his (Bosworth's) saw would be still on deck long after the swivel knife had been forgotten. While this may sound to some as the irresponsible language of post-prandial enthusiasm and exaggeration, at the same time it may well come to pass that in some cases we will return to some of the older methods, or modifications of older methods, which, though less spectacular than most of those performed at the present day, did very much less harm.

The elder Disraeli, in the preface to his "Amenities of Literature," says that to be ignorant of all antiquity is a mutilation of the human mind. It has long been my custom when seeking something new to go to the ancients. So in the rush of modern invention and procedure it may sometimes be wise and profitable to pause, retrace our steps, and pass in review the work of those who have gone before. We of this generation may in this way learn much from those who, in the grey dawn of its earlier history, fought the battles of laryngology to make its calling and

election sure in the eyes of their fellow-men.

In this rambling, disorderly, crazy quilt talk which I have given this little family gathering here assembled, I have endeavored in an informal way to recall some of that past, to remind you that all things did not go very well then; that difficulty after difficulty had to be met and surmounted; that the distrust in which our calling was held in many quarters had to be overcome, and that finally the laryngoscope had to be brought from its lowly place as a simple means of examination to occupy its now recognized lofty position as an instrument of progress and power in medical research, in scientific expansion and in the exploration of the unknown. The men of those days lived in a time of crisis. Laryngology was on trial, its fate was hanging in the balance. An obsession or madness such as some that have since swept through the specialty would have turned the scales, for the serpent of Esculapius

had not then been driven from the temple by the Golden Calf. Remember, too, that in that day the earnest seeker after truth had to reckon not only with his brother in regular standing, but also with the charlatan and the professional quack. It was this latter gentry's quickening opportunity and appointed time; for in the darkness and mystery of an incompletely explored terrain they found their Canaan, and in that promised land their fields of gold. Medical men confounded them with the struggling laryngologists, whom they looked upon with suspicion, and spoke contemptuously of his limited sphere of work, quite forgetful of the fact that their own ignorance of the subject was abyssmal, that their sole weapon for the conquest of throat disease was the probang, and that they were long unwilling to let even that frail scepter of their power, or impotence, pass to other hands.

I have tried this evening to live only in the past; to forget the present with all its wealth of marvelous achievement; to call back a part of the practice of a rugged era, some of which deserves to outsleep Endymion in oblivion, but much of which was most wholesome and good; to breathe again the purer and the happier atmosphere of that era, and to snatch from it, perhaps, some lost ideal; to roam once more through pleasant fields, wild and uncultivated maybe, but which loving recollection has forever kept full of fragrance, even though the budding hope of laryngoiogy had not then come to flower.

ADDENDUM.

The equipment of the medical student is not complete without some knowledge of the past history of his art and the names, the personalities, the aspirations, the ideals, the lives and deeds of those who made it. It is an amputation of his mind to cut it off from the wondrous story of the birth and growth and development of medicine and its compelling progress in all the ages, through storm and sunshine, through error and enlightenment, through failure and achievement. And if he goes at it in the proper way, its study will not be labor, but will bring to him the most satisfying mental relaxation and the most refreshing consciousness of culture that cannot be obtained in any other way. In the short sketches which follow I have given a few brief references to the work of some of the men whom

every student of rhinology should know something about.

Jean Fernel, or Fernelius, as he is known to the medical historian, was born in Picardie (1496), but later moved to Paris, where he acquired a large practice and became body physician to Henry II, then King of France, whose sterile wife, the notorious Catherine de Medici, was made to bear offspring through his skilful treatment, a service which so pleased the monarch that whenever he left home he always took Fernelius with him. On one of these excursions the physician's wife was taken suddenly ill with a cold and died, and her husband's grief was such that he followed her soon afterwards to the grave. Catherine had a number of children, among them two daughters—Elizabeth, who married Philip II of Spain, and Margaret of Valois, who married the King of Navarre—and a son, Henry, who ascended the throne as King Henry III. It is interesting in this connection to recall the anecdote of the latter at the betrothal feast of his sister, Margaret, as an historical example of the power of olfactory impression in awakening sexual desire. On that occasion he dried his face, by accident, with a garment, moist with her perspiration, belonging to Maria of Cleves. This so excited him sexually that, although Maria was then the bride of the Prince of Condé, he could not restrain his passion, and made her miserable, as history tells us. A similar story is told of Henry IV and the

beautiful Gabriel, who later became his mistress, the King's desire being aroused when at a ball he wiped his wet brow with her handkerchief.

Fernelius was a prolific writer, but among his services to medicine he should be remembered by laryngologists in general and students of sinus disease in particular as the keen observer, who a century and more before Schneider wrote, with the ancient doctrines of the Greeks and Arabians still unchallenged, and 400 years before our own time drew, unconsciously perhaps, a subtle distinction between suppuration from the "pituitary sinuses or thereabout and the purulent flux which was supposed to come from the cavity of the cranium.

Gabriel Fallopius, 1523-1562, famous anatomist, whose name survives in many parts of the body, notably the Fallopian tubes, the brilliant pupil and successor of Vesalius, should be familiar to laryngologists for having introduced the cannula in the development of the modern snare and

as the alleged discoverer of the sphenoidal sinus.

Aranzi, Arantio, or Julius Caesar Arantius, a celebrated Italian physician and surgeon of the sixteenth century, wrote among other volumes a work on the human foetus and tumors, and invented a forceps for the removal of nasal polypi. He introduced an original method for the direct examination of the nasal passages. In a wooden window shutter, opening into a darkened room, he cut a circular foramen, through which the direct concentrated rays of the sun were allowed to stream. The organ to be examined (nose, ear) was thus illumined by the column of sunlight. If the sun was not shining, or if the examination took place after dark, he used a candle or, better still, a globe of crystal filled with water through which the light was made to pass, thus anticipating the so-called "Schusterkugel" method of examination of the present day by nearly 300 years.

Nathanael Highmore, an English anatomist, born in 1613, the author of books on the art of generation, hysteria and hypochondriasis, but is chiefly known to medical scholars by his work on anatomy, published in 1651 and entitled "Corporis Humani Disquisitio Anatomica," in which occurs his famous description of the antrum maxillare illustrated by a large plate with three or four figures, in which he portrays the cavity and its relation to the surrounding structures and to the brain.

The two Meibomii—John Henry and Henry, his son, the latter born in 1638 and known to anatomy as the discoverer of the Meibomian follicles in the eyelids—were among the early investigators of antrum disease, as we learn from the work of J. G. Günz (Programma Indicit et Observationem Ad Ozaenam Maxillarem Ac Dentium Ulcus Pertinentem Proponit-Lipsiae, 1753), a learned exposition of the maxillary antrum surgery of his day.

James Drake (1667-1707), an English anatomist and surgeon, chiefly remembered by his classical work on anatomy entitled "Anthropologia Anatomica," was one of the first, if not the first, to call attention to the fact that the sanies of ozoena (foetid and purulent discharges from the nose) came not infrequently from the pituitary (accessory) sinuses and more

especially from the antrum.

William Cowper, an English surgeon anatomist, born in 1666, has the credit of having discovered the urethral glands (1702), which today bear his name, although they were previously found and described by Méry (1684), wrote several well-known works on the muscular system and a treatise on anatomy entitled "The Anatomy of Humane Bodies," published in 1698, which he illustrated with 105 original plates, to which he added 9 perfunctory ones of his own, which with a serene audacity which is not a stranger to some of our fellow-mortals of the present day, he bodily stole from the classical work of Bidloo (1685), a celebrated Dutch anatomist and contemporary. Cowper's service to laryngology consisted in bringing the main anatomical facts of sinus (antral) disease to light, in laying open, as it were, its pathological condition, in showing how it could be distinguished from other affections, how easy is was with the aid of anatomy to apply remedies direct to the cavities themselves, and finally how readily the structures could be reached surgically, thus making a giant stride from the practice, which we learn from Celcus, came down from a remote antiquity, of cutting open the face even in cases of superficially situated ozoena and purulent discharge and sewing it up again.

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BALTIMORE, APRIL, 1916

WILL THE CLOSING OF BALTIMORE'S SEGREGATED DISTRICT RESULT IN A DECREASE OF VENEREAL INFECTION?

THERE are many advocates for the closing and as many against the closure of assignation-houses. Those for declare that venereal infections are decreased thereby; those against claim that such conclusions are misleading and fallacious. So there you are. You can take your pick. However, the researches of Dr. A. R. Warner, as published in the Cleveland Medical Journal, lead us to believe that the abolition of the segregated district in Cleveland has absolutely resulted in a decrease in venereal infection in that city. Though figures can be made to lie, and, in many instances, prove but little, still one cannot help but be convinced that syphilis has been lessened by these measures. For the eight months preceding the closing of these houses 112 cases of syphilis, in which full data could be obtained, were treated in the Lakeside Dispensary. In comparison with these figures, the first eight months following the closing of the segregated district produced only 18 cases of syphilis for treatment in the Lakeside Dispensary. If there was such a falling off in the number of luetics presenting themselves for treatment in a dispensary of the character of the Lakeside, it is only fair to conclude that these figures are approximately correct for the entire city, and might justly serve as an index. It may, therefore, be assumed that this comparison is a fairly accurate picture of the public health as respects syphilis before and after the closing of the segregated district. With the vice district in operation 112 cases presented themselves for treatment; with it closed only 18. Surely if a law operates to produce

such a falling off in a disease so fraught with suffering, both bodily and mentally, it is impossible to calculate or even to realize the blessings resulting from its creation. If the closing of the vice district in Cleveland has operated so excellently in decreasing luetic infection, there is no reason why the same results should not obtain in Baltimore. If morphine could be obtained at every corner grocery store, there would be more morphine addicts than there are under the present stringent restrictions as regards the obtainal and disposal of this drug. So, if the bawdy-house is easily accessible to the young man and youth of the city and surrounding districts, naturally they will, when occasion presents, seek them out for their nefarious practices. If the plying of the trade by inmates of houses of prostitution, rooming-houses and street walkers is proscribed by law, then the opportunity of those desiring such associates will be materially diminished, and it seems reasonable to expect under such conditions a falling off in the amount of venereal infection. At any rate, such has apparently proven to be the case in the city of Cleveland; the same happy results should follow the closing of the Baltimore vice district. Syphilis is a horrible infection. It causes its victims to loose all self-respect. It not only wreaks its vengeance on the original sinner, but his descendants, unborn generations thus paying the price for the waywardness of others over whom they had no control. The city, the nation, the State, the individual, one and all suffer as the result of the spread of syphilitic infection throughout the land. Surely, then, those Baltimoreans who were courageous enough to fight this canker in the body politic are to be thanked for the fight they waged and for its successful outcome. The final results will prove the wisdom of eliminating such evils from the city. The law has proven already its value in Cleveland, and when similar results are published from Baltimore the good people will come to a thorough realization of the debt owed the agitators and reformers, dreamers, if you care, who doggedly and steadfastly stuck to the job and once and for all time drove harlotry out of the city.

Medical Items.

The complimentary dinner which is to be given Prof. Randolph Winslow in commemoration of the completion of his twenty-fifth year as a member of the Major Faculty of the University of Maryland Medical School, will be held at the Hotel Belvedere, on Monday, May 8th, at 8.30 P. M. The committee on arrangements is composed of Drs. William P. Stubbs, chairman; Arthur M. Shipley, William Tarun, G. Milton Linthicum, Alexius McGlannan, Fred W. Rankin and Elmer Newcomer.

Dr. Everett Le Compte Cook, who for the past two years has been resident at the Municipal Tuberculosis Hospital, will soon enter private practice.

Dr. J. F. Byrne, who assumed the duties of health warden of the Fourth ward, February 1st, has resigned from the City Health Department. He will resume his former duties as a member of the medical staff of the Baltimore and Ohio Railroad. Dr. Byrne was appointed to succeed Dr. H. K. Gorsuch, resigned.

In order to study the latest methods in hospital management and in the conduct of clinics, Dr. W. F. Mayberry and Dr. E. B. Echlin, of Ottawa, Canada, spent a few days at the Johns Hopkins Hospital., They stopped at the Belvedere Hotel.

Dr. Joseph C. Bloodgood held a cancer clinic at the University of California Hospital, San Francisco, March 31st, under the auspices of the California Academy of Medicine.

Dr. Raymond L. Johnson, of the resident staff of the University Hospital, tendered his resignation March 31, to accept a position with the Atlantic Coast Line Hospital, Waycross, Ga.

At the session just ended, the Maryland Legislature created a commission to be known as the Washington Suburban Sanitary Commission, to study the matter of water supplies and drainage systems for the sections of Montgomery and Prince George's counties, bordering on the District of Columbia. The commission is authorized to negotiate with the proper authorities of the District with reference to the connection of the proposed county sewerage systems with the sewerage system of the district.

In September another step forward will be taken by the Johns Hopkins Medical School, when the immunologic department of the school will be opened. This department will occupy the fifth floor of the new Hunterian laboratory building, which is in the course of construction. The medical school has had an immunologic department in the past, but it has never been developed in the manner in which those in charge of it desired. The main purpose of the building will be to afford opportunities for bacteriologic study, particularly in connection with post-mortem examinations.

Dr. J. McPherson Scott has been re-elected mayor of Hagerstown for the fourth consecutive term.

Dr. CHARLES W. MITCHELL, who has been seriously ill with pneumonia, is improving steadily.

DR. HENRY MILLS HURD gave a dinner at the Maryland Club recently to the members of the Board of Trustees of the Johns Hopkins University and a number of prominent physicians of the city, to mark the fiftieth anniversary of his graduation in medicine.

The Nurses' Training School of the Maryland General Hospital, held its annual commencement at 3.30 o'clock on the afternoon of April 18, at Lehmann's Hall. There were fourteen graduates, comprising the largest class ever graduated from the hospital. Following the exercises the graduates were guests of the Nurses' Aid Committee at a banquet at the Rennert Hotel.

The first joint meeting of the Baltimore City Medical Society and the Medical Society of the District of Columbia was held at Osler Hall, April 7, at 8.15 P. M. A smoker was held in honor of the Washington guests immediately after the meeting.

WE are pleased to announce that Dr. Frank W. Keating, superintendent of the Maryland Training School for Feeble-Minded Children, Owings Mills, Md., who was operated on recently for gall-stones and chronic appendicitis at the University Hospital, is rapidly convalescing.

Dr. John M. T. Finney delivered the fifteenth Rush Society Lecture in lecture room B, of the medical laboratories of the University of Pennsylvania, April 6, on "What Constitutes a Surgeon." This lecture is also the annual address before the Undergraduate Medical Society of the University of Pennsylvania.

THE Skin and Cancer Hospital has moved into its new home on Greenmount avenue. The buildings are large and the grounds ample for

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THE AMERICAN NATIONAL RED CROSS IN FIRST AID AND ACCIDENT PREVENTION.

By Major Robert U. Patterson,

Medical Corps, U. S. Army, Chief Bureau of Medical Service, American Red Cross.

WHILE traveling in Italy during the Franco-Austrian Campaign of 1859, M. Henri Dunant, a distinguished Swiss gentleman, witnessed the scenes of suffering that followed the battle of Solferino and Magenta and became deeply impressed with the fact that the medical services of armies were totally inadequate to properly handle and care for the sick and wounded. Even today only bare necessities in the way of personnel and materials are furnished the sanitary services of armies, and it is just as necessary now as it was then to supplement the regular medical service by organized civilian assistance. M. Dunant was so affected that he wrote a vivid description of what he had seen, and urged the organization of volunteer relief organizations by all countries to follow their armies in campaign and assist their medical departments. As a result of his efforts the Society of Public Utilities of Geneva, Switzerland, took up the matter and placed the work under the supervision of a special committee, of which M. Henri Dunant was made the secretary. This committee held a preliminary meeting in February 1863, and issued an invitation to all European nations to meet in a conference subsequently held in October 1863.

Following that conference an international convention was assembled in Geneva in August, 1864. The organization which took place at that meeting was made possible largely through the efforts of Mr. Fogg, U. S. Minister to Switzerland, and Mr. Bowles, the European agent of the United States Sanitary Commission, who were able to place before the conference such evidence in the shape of documents and statistics, based on the work of the United States Sanitary Commission in the Civil War, which was then being fought, that the most skeptical members of the

convention became convinced of the practical value of such relief work. The United States, however, did not signify its adherence to the provisions of the Geneva Convention of 1864 until 1882.

Until recent years Red Cross Societies existed solely for the purpose of furnishing aid to the sick and wounded in time of war. Such assistance of course included, and still includes, first aid treatment, as well as the final treatment which is given in hospitals along the lines of communication and in the home territory. However, when the American Red Cross was reorganized by act of Congress, January 5, 1905, further duties were placed upon it, viz., "to carry on and conduct a system of national and international relief in time of peace, and to apply the same in mitigating sufferings caused by pestilence, famine, fire, flood and other great national calamities, and to devise and carry on measures for preventing the same." So that, following the last incorporation, our Red Cross has taken an active part in relieving disasters which have occurred in peace, while preparing at the same time to fulfill its principal duty, namely, the furnishing of assistance to the armed forces of our country in time of war. Since the final incorporation act more than \$10,385,000 has been disbursed in relief work by the American Red Cross, some of the best known examples being the Ohio flood of 1913, and San Francisco earthquake of 1906, the Washington place factory fire, New York city, 1911; the "Titanic" wreck, the Mississippi floods of 1912. Foreign countries have received aid from our Red Cross on numerous occasions, instances being the Italian earthquake of 1908, the Chinese famine of 1907, the Valparaiso (Chile) earthquake, the Turkish-Armenian atrocities, the succoring of Syrian destitute, and extensively during the two recent Balkan

In July, 1913, during the reunion held on the occasion of the fiftieth anniversary of the Battle of Gettysburg, July 1 to 4, inclusive, at Gettysburg, Pennsylvania, 11,540 veterans received assistance in the fourteen first-aid stations established by the Red Cross on the battlefield at that time.

Since the outbreak of the European War, in August, 1915, 75 surgeons and 255 nurses, composing sixteen hospital units, have been sent to Europe by the American Red Cross and maintained there for more than one year, assigned to duty with the belligerent countries. In addition, a sanitary commission composed of 42 physicians and practical sanitarians was sent to Serbia and remained there from April to October, 1915. From the outbreak of the war up to and including March 31, 1916, 204 shipments have been made to all the belligerent countries which aggregate 34,820 cases and are valued at \$1,171,807.86.

Enough has been said to show that our organization has been and is still most active in giving general relief and in furnishing first aid in the larger meaning of that term, under war conditions. By the provision in our constitution, already referred to, we are charged to relieve "other great national calamities and to devise

and carry on measures for preventing the same." The appalling number of fatal accidents which occur annually in the United States has been considered by the American Red Cross to be no less than a national calamity, inasmuch as at least seventy-five per cent. of such accidents are preventable. It was therefore agreed that it was clearly the duty of the American Red Cross to endeavor to remedy such conditions by devising measures for preventing accidents or the fatal results thereof.

Accordingly, it was decided to organize a First Aid Department. Major Charles Lynch, Medical Corps, U. S. Army (now Lieutenant-Colonel) was placed in charge of the organization of the department and began the work on January 2, 1910. By act of Congress approved March 3, 1911, the Secretary of War was authorized to detail an officer of the Medical Corps of the Army to take charge of the First Aid Department of the American Red This gave to our organization an official right to the services of Colonel Lynch, and it is under that authorization that the present incumbent succeeded Colonel Lynch when he was ordered for a tour of duty in the Phillipine Islands in 1913.

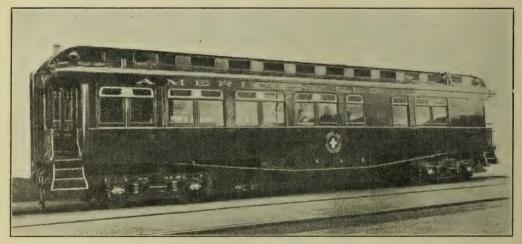
In May, 1914, a Bureau of Medical Service was created to meet an emergency which existed at that time and the First Aid Department was placed under that bureau. At the annual meeting in December, 1915, all relief work of the American Red Cross was separated into two departments, viz., the Department of Military Relief and the Department of Civilian Relief. Under the Department of Military Relief are three bureaus, one of which is the Bureau of Medical Service, which in turn has two divisions, a "Personal Division," which has to do with all male personnel for the Department of Military Relief, and the First Aid Division. As a result, what was originally known as the First Aid Department is now called the First Aid Division.

There are available some interesting statistics which are very similar to figures which existed at the time that it was determined to organize a First Aid Division, except that in some cases they are worse now rather than better.

According to the United States Bureau of Mines in 1914, out of a total of 742,644 men employed in the coal mines of the United States, 2451 were killed, or to put it more graphically, one man died for every 200,000 short tons of coal produced. According to the Interstate Commerce Commission, there were 202,-964 persons injured in railroad accidents in 1914, of whom 10,302 were killed. It is encouraging, however, to note that these figures show a decease of 662 persons killed and 71,646 injured as compared with 1913. Analyzing the report further, it is noted that of the 10,302 persons killed, 265 were passengers, 3259 employes, and 6788 were other persons or "trespassers." Trespassing is one of the greatest evils with which railroad companies have to contend. Of the 192,662 injured, 15,121 were passengers, 165,212 employes, and the remaining 12,329 were other persons or "trespassers."

In 1913 among 106,278 men employed in the quarries of the United States there were 183 men killed, 1092 seriously injured, and 6647 slightly injured. The Bureau of Census (which now comprises a registration area of 65 per cent. of the total population of the United States) states that in 1913 there were 1998 deaths from street-car accidents; 2488 deaths from automobile accidents; 2381 deaths caused by other vehicles; 978 killed by lightning and electric shock.

It is quite significant that the year 1913 is the first one in which the number of deaths from automobile accidents exceeds those from "other vehicles." This, of course, can be accounted for largely by the fact that the use of automobiles is increasing annually. In compiling the deaths from "other vehicles," accidents connected with horse-drawn vehicles of all kinds, bicycles and motorcycles were included.



AMERICAN RED CROSS FIRST-AID CAR.

This car has a complete equipment for first-aid instruction and is also prepared to assist in rescue work after great disasters. Beside living quarters for the staff and storage-rooms for equipment, the car has an assembly or demonstrating room 26 feet long. This room can be quickly converted into an emergency hospital when desired. The car was donated to the Red Cross by the Pullman Company.

More than 800,000 men are said to be employed in the lumber industry of the United States, but there are no exact figures for the country. However, accurate statistics have been kept in the State of Washington. In the first five months of 1914 out of 181,000 men employed in the industries of that State 35 per cent. (63,350) were employed in the lumber industry. Among these men during that period of time there was a total of 4928 accidents. In the same State during the period October, 1911, to September, 1913, among 47,400 men employed in the logging camps and lumber mills at that time there were 251 deaths, 990 men were permanently disabled from earning their own livelihood.

and 8420 others were temporarily totally disabled as a result of accidents.

The Interstate Commerce Commission Report for 1912 contains the following significant statement referring to certain safety devices which they had required to be installed on railroads within a certain time:

"Up to the present time, however, but a small per cent. of the total number of cars to which the rule is applicable have been equipped, and unless the work is expedited, it cannot be completed within the time allowed by the Commission's order."

This goes to show how slow some companies are to comply with regulations looking to the safety of their employes and the public. There are equally distressing facts and figures connected with

other industries.

It has been conservatively estimated that between 90,000 and 100,000 fatal accidents occur annually, and that five times that



JUDGES AND TEAMS AT WORK. First-aid Division, American Red Cross, First-aid Contest.

number of accidents occur which result in incapacitating individuals from earning a livelihood. Computing very conservatively the earning capacity of each of this latter group at \$500 per annum, an aggregate money loss of \$250,000,000 annually is indicated. These latter figures of course take no account of expenses incurred by legal claims, damage suits, of the loss to employers of employes, expenses for surgical care, and finally the suffering and sadness brought into thousands of homes, which latter cannot be measured in terms of dollars and cents.

By a campaign of education the public has finally been aroused to the fact that most of the communicable diseases are preventable, but it has been a very difficult thing to bring to them a realization of the fact that this is also true regarding accidents. One of the most striking examples of the elimination of a disease is

the practical disappearance of typhoid fever from the morbidity tables of the United States Army. In the Maneuver Division in Texas in 1911 only two cases of typhoid fever occurred among 15,000 men. One of these was a civilian teamster who had not been protected by inoculation and the other was a private in the hospital corps who had not completed his course of immunization. For the past three years from six to twelve thousand troops of the United States Army have been in camp or participating in maneuvers at Galveston and Texas City, Texas, and on the Mexican border, and yet only one case of typhoid fever has developed among these men. At the same time among the civilian population living alongside of these troops typhoid has been an almost daily occurrence. According to the United States Census there has been a steady decrease in the death rate from preventable diseases in our country, while deaths due to accidents have just as steadily increased.

The first question then that the First Aid Division had to solve was how to remedy the existing conditions and change the attitude of the public towards accidents. Methods for the prevention

of accidents fall naturally into two headings:

I. Education.

2. The installation of safety devices.

Education should begin with the employer and then extend to employes and to the general public. A walk through the Museum of Safety in New York City is in itself an education on the subject of safety devices and appliances, and similar institutions should be installed in all of the larger cities. Employers may be appealed to in two ways, first on their purely humanitarian or sentimental side, and secondly from a cold-blooded business standpoint. Convince them that they can save money by preventing accidents and their interest will be aroused at once. It is easy to demonstrate to employers that the prevention of accidents will lessen the number of cripples to be cared for, diminish the death rate among employes and minimize the number of damage suits and legal expenses. The time lost to the company while employes are disabled and the resultant reduction in the efficient operation of their plants due to the breaking in or training of new men will also be lessened, and the efficiency remain constant. Statements of this kind bring the matter home to employers, or to use a slang expression, when you show the employer how to save money "you hit him right where he lives." It must be said, however, that practically all employers are now becoming greatly alive to the necessity of accident prevention and are even going further. Nevertheless, with all the known precautions and devices that there are for the prevention of accidents, there will inevitably be a certain number of them, and employers are more than willing to support measures calculated to mitigate the results of such accidents by bringing a knowledge of "first aid to the injured" within the reach of their employes.

The employes themselves are reached principally through this latter means—that is, by teaching them first aid. They are shown that deaths from uncontrolled bleeding can be prevented, and that "simple" fractures can be kept from becoming "compound" when properly handled. There are numberless other equally good examples by which their attention can be arrested at once. Teach the workingman safety or accident prevention *plus* first aid, and good results will always follow!

In many of the mining companies of the United States it has been clearly demonstrated that the accident rate among men with a knowledge of first aid and accident prevention is 75 per cent. less than that among their uninstructed comrades. Dr. M. J. Shields of the First Aid Division of the American Red Cross, who is one of the pioneer teachers of first aid in this country, says that accidents occur most frequently among two classes of workmen, viz., either the very new and "green" man, or the expert old employe who grows careless. It has been observed that firstaid instruction makes the expert or old employe not only more careful in regard to his own hurts, but ready to offer kindly advice and caution to his less experienced co-workmen. After all is said, the greatest benefit is received by the workingman himself, first by the prevention of accidents, and secondly by efficient firstaid treatment when injuries actually occur. Good first-aid treatment will shorten the time lost by workmen on the disabled list because hospital records show that patients who have received such assistance and care are in better condition when they enter those institutions. How is this brought about? When injuries receive prompt first-aid treatment—as when factures are properly immobilized, thus enabling the patient to bear transportation—the amount of pain and resultant shock is greatly diminished. There are also fewer cases of infection as a result of the knowledge possessed by first-aid workers. All of these things promote the general welfare of the injured and increase their chances for an early recovery. This is also a great reduction in the outlay for maintenance in hospitals, by lessening the number of days lost in such institutions by injured men, and also a great cutting down in expense for surgical dressings, as wounds are apt to remain clean instead of becoming infected. From the physicians' standpoint the good condition in which they receive their patients after proper first-aid treatment commends such instruction to the entire

One word of warning, however, should always be given when commencing first-aid instruction. "First Aid" in its proper sense is simply what the layman can do "until the doctor comes" or "what to do in order to get the patient to the doctor in the best condition." To go further would be dangerous and inadvisable. No one wishes to be treated by anyone but a physician when they are injured or ill, unless the services of a physician are unobtainable immediately, and it is precisely to meet such situations that first-aid instruction should be given. In other words, first-aid

instruction teaches what can properly be done and what cannot

properly be done to a sick or injured person.

The present staff of the First Aid Division consists of four physicians and one life-saving expert, in addition to the officer in charge. Two doctors are kept constantly on duty on our two first-aid cars traveling over the railroads of the country, and the other doctors are detailed in other large industrial fields and independent companies. It has been our practice to keep one of the cars on railroads east of the Mississippi River, and the other on the railroads west of that river. At the present time Car No. 2 is engaged on a tour of the Erie Railroad System, which it began at Chicago on March 7, and is to terminate at Jersey City, N. J., on April 17.

Recently Car No. 3 while engaged in a campaign on the Illinois Central Railroad was wrecked and burned near Greenwood, Miss. Through the generosity of the Pullman Campany we are to have another car to replace it in a few weeks. At the time of the destruction of the car we had already arranged for a campaign of first-aid instruction on the Missouri, Kansas & Texas Railroad to start at St. Louis on March 19. Through the courtesy of Mr. A. A. Krause, safety commissioner of that railroad, the physician and porter formerly on Car No. 3 were transferred to the "Safety Car" of the M. K. & T. line, and are using it to do the work on that road. To give one an idea of the amount of work accomplished by the doctors on our cars, the reports for 1915 show that eighteen railroads were covered between December 7, 1914, and November 20, 1915. This entailed travel aggregating 22,977 miles and the delivery of 818 lectures and demonstrations by which 46,839 railroad employees received instruction.

A number of industrial companies such as the New York Telephone & Telegraph Company, the Bell Telephone Company of Pennsylvania, the Chesapeake & Potomac Telephone Company, the Edison Illuminating Company of Brooklyn, N. Y., and also large mining concerns have been loaned the services of members of our staff to instruct their employes in first aid. The police and fireman of Washington, Baltimore, Philadelphia, New Orleans, Toledo, Cleveland and Chicago and many other large cities have been instructed either by the physicians or the life-saving

expert on the staff of the division.

For more than 18 months previous to June, 1915, the American Red Cross endeavored to enlist the interest and financial cooperation of those engaged in the lumber industry of the United States, asking various companies to join us in a systematic campaign of instruction in accident prevention and first aid to the injured among the employes of logging camps and lumber mills. Finding that it was practically impossible to obtain financial assistance from them, it was decided to inaugurate the instruction ourselves, hoping that the results would convince those who employ lumbermen of the practical and economic value of such work, and appeal to them through their pockets, if not on purely humani-

tarian grounds. Accordingly, early in June, 1915, Dr. W. N. Lipscomb was detached from American Red Cross Car No. 2 and directed to take charge of this work. As an attraction in launching the undertaking it seemed desirable to have one of our railroad first-aid cars attached to the "lumber service" for the first month, and Dr. Wm. T. Davis with Car No. 2 was directed to remain in Washington State and co-operate with Dr. Lipscomb until the middle of July. There are more men employed in the logging camps, sawmills and lumber yards of the State of Washington than any other State. For that reason Washington was selected as the one in which to start our campaign. Very fortunately for the plans of the American Red Cross many influential citizens of that State have become interested in the work, and have given it their moral as well as personal support. The first lectures and demonstrations by Drs. Lipscomb and Davis were given at Camp No. 5 of the St. Paul and Tacoma Lumber Company at Orting, Washington, followed by lumber companies at Paulson and at Hoquiam and Aberdeen in the Gray's Harbor District.

Since the inauguration of the work in June, 1915, and up to November 20 of the same year, Dr. Lipscomb gave instruction to lumbermen in the Gray's Harbor District, at Montesano, Seattle, Everett, the Arlington District, Sedro Wooley District, and at Tacoma and its vicinity—all in the State of Washington. In covering that territory in the time specified, he visited 76 logging camps and lumber mills, and instructed 7265 lumbermen. While instructing lumbermen he also has taken time to teach a large

number of special classes among other industries.

The usual procedure followed when commencing a first-aid campaign on railroads is to arrange with the Operating and Safety Departments of the road for an itinerary providing for stops at all important points, as division headquarters, terminals, roundhouses, shops, etc. The instruction is carried on with the full cooperation of the medical and surgical services of the roads concerned. General bulletins announce the routing of the car and are sent out in advance from the head offices of the road, and give the dates the car will arrive at the points for which stops have been scheduled, and other information. Any changes that are made are telegraphed ahead of the car. In addition, it is customary for division superintendents or their deputies to send ahead of the car additional advices as to the exact time of arrival, and when practicable the hours for meetings, etc., while the car is on their section of the line. Whenever the car reaches a stopping point, the doctor in charge confers with the local railroad officials and arranges the hours for the lectures. Usually two or three are held daily, lasting for about one hour each. At places where shops are located a large mass-meeting is generally held in some open space, and the demonstrations are given on a temporary platform in plain sight of all. Such meetings usually take place between 12.30 and 1 or 2 P. M., and routine lectures are at 10 A. M., 3 P. M. and 8 P. M. Railroad officials, with few exceptions, arrange to

allow men time off to attend these meetings, but not infrequently the lectures are given on company time. In the evenings, meetings are generally held on the car, but when suitable halls are available in the vicinity they are utilized. Each talk is started by the doctor with some general and special remarks on "safety and accident prevention," after which volunteers are called upon from the audience on which to demonstrate simple and practical first-aid methods, such as how to arrest bleeding, the treatment of burns, the immobilization of fractures, artificial respiration, method of transporting patients on litters, and different ways of improvising litters and stretchers when such are not available. At the close of the talk a few moments are devoted to answering questions.

Whenever industrial concerns, other than railroads, request the assistance of the division, a doctor is detailed by the officer-incharge to proceed to the headquarters of the company and there arrange a schedule for a short but thorough course by lectures and practical demonstrations, so that the men employed in each branch or department of the company will be able to avail themselves of the instruction. Frequently as a result of the doctor's lectures many of the men desire to go further and will apply for the regular Red Cross course, which leads to the award of the Red Cross certificate of proficiency in first aid. Thousands of first-aid classes have been organized all over the country, not only among industrial employes, but in schools, colleges, among social

workers and in many instances wealthy society people.

Each class consists of not less than four or more than twentyfive members. The class president or secretary nominates to the First Aid Division some physician to act as their instructor. If his credentials are found to be satisfactory from records in our office, the physician is duly authorized to give the instruction for the Red Cross. The course consists of not less than ten lectures and demonstrations each of one and one-half hours' duration. When ready for examination a physician other than the one who gave the instruction is authorized to conduct it under the same conditions. The examiner is required to use the examination form sent out from the Red Cross office and to follow the system of marking thereon. Those who attain a mark of 75 per cent. in the written and practical work of the examination are entitled to certificates. A special circular giving full information on the subject of organization, instruction and examination of American Red Cross First Aid Classes may be obtained on application to the Washington office.

In order to have a standard work for the use of physicians who desire to teach first aid, and for the use of their pupils, an excellent text book was written by Major Lynch. While physicians are not obligated to use the American Red Cross textbooks in teaching first aid, as any other standard work is acceptable, it is preferred that they do so, because to date it is the only work on first aid which deals with the prevention of accidents as well as

with their treatment. The first book written is very full and includes information on the subject of relief columns. To meet the desires of those who are more interested in first aid alone, rather than in relief columns, an abridged edition was issued which is known as the "general" edition, and was followed by another one suitable for workmen called the "industrial" edition. Other editions have been written to meet the special needs and work of Women, Police and Firemen, Miners, and Railroad employes. The "industrial" edition has been translated into Italian, Lithuanian, Slovak, Polish, Chinese and Spanish. In addition to the textbooks, each first-aid class should have a set of charts illustrative of the skeleton, muscles, and circulatory system of the body, and a supply of bandages, splints, and other materials with which to practice. The latter supplies are contained in the American Red Cross "First Aid Instruction Outfit," and includes bandages of all kinds, splints, tourniquets, first-aid packets and safety pins, etc. With the books, charts and an instruc-

tion outfit an excellent course can be given to any class.

So many manufacturing and other concerns have requested the Red Cross to recommend to them first-aid supplies that a number of boxes have been placed on sale with the contents adapted to the peculiar needs of various industries, and for every-day life. In our First Aid Supply Section at the present time we keep boxes, packages and a varied assortment of dressings, and other special first-aid equipment. There are two household boxes (large and small), an industrial box, one for schools, and a gymnasium, street, telephone, railroad and automobile box. We also have furnished special boxes to the Forestry Bureau, Department of Agriculture, and to the United States Coast Guard. A special box has been devised for the New England Telephone & Telegraph Company. In many instances companies do not know just what they require and write to us for information. The division is ready to give advice and to manufacture and supply boxes and special dressings to meet the needs of individuals upon request. All of our first-aid materials are listed in a catalogue, and are sold at cost price, plus an additional charge to cover expense of handling, shipping, etc. It is pure extravagance to put articles in first-aid boxes that are not necessary. It is also dangerous to place improper articles in them. Not long ago it was proposed by an official of a certain company to place a number of poisonous drugs in a first-aid outfit which they intended to have used by young and inexperienced boys! One can readily imagine what serious results might follow such a procedure.

Realizing that throughout the country there is a general lack of uniformity in the methods of teaching first aid, in the types of first-aid boxes, packages and other first-aid equipment, and in first-aid practice, a number of surgeons of the Army and Navy, the Public Health Service, railroad surgeons and physicians and surgeons prominent in civilian life met at the New Willard Hotel, Washington, D. C., August 23 and 24 to discuss the standardiza-

tion of these different things. The conference made a permanent organization to be known as the "American First Aid Conference" and passed a resolution recommending to the President of the United States that he appoint a board to represent the Medical Corps of the Army, the Medical Corps of the Navy, the U. S. Public Health Service, the American National Red Cross, the American Medical Association, the American Surgical Association and the Association of Railroad Chief Surgeons, to go over carefully all of these subjects and to make a report to a subsequent conference to be called by the permanent chairman. As a result of this recommendation, the President appointed such a board, which is now meeting from time to time, and it is expected that they will be able to make a report within the next six months or a year. The recommendations of the board will be most valuable, and it is expected that the majority of industrial concerns will

adopt their suggestions with few reservations.

The American Red Cross is affiliated with the Y. M. C. A. and the Y. W. C. A. in first-aid work and issues a joint certificate with these institutions under certain restrictions. Mutually beneficial relations exist between the Red Cross and the Boy Scouts, the Girl Scouts, the Bureau of Mines and many members of the medical service of the National Guard. There are many ways in which the Red Cross has endeavored to introduce a knowledge of first aid to the country at large and to stimulate continued interest in such work among those who have received instruction. We have special funds from which annual donations are made for the best instances of first-aid work performed in each calendar year, provided that workers are holders of Red Cross First-Aid Certificates, or are persons who have been instructed under Red Cross auspices. One of the funds is known as the "William Howard Taft Fund," and the prizes from that particular fund are restricted to instances of first-aid treatment by railroad employes. prizes in both funds are four in number and are in the sums of fifty, twenty-five, fifteen and ten dollars for the first, second, third and fourth prizes, respectively.

By holding first-aid contests, field days and public exhibitions at which Red Cross prize medals and prize certificates are donated to members of winning teams, the cause of first aid has been greatly helped. In the mining districts they have company elimination contests to ascertain the best teams, and these teams then represent their companies at what are known as "intercompany" meets. The largest first-aid meets are "interstate" affairs. The most important first-aid meeting for miners that has ever been held in this country took place on the 22nd, 23rd and 24th of September, 1915, at the Panama-Pacific Exposition at San Francisco, California. The first day of the meet, September 22, the contests were held under the auspices of the California Metal Producers Association, and the entries were limited to teams from the State of California. On the 23rd teams representing nine different States competed in an elimination contest to de-

termine the teams from each State to represent the respective States in the final events. The deciding tests were held on September 24 and were most closely contested. At this meet the judging was in charge of the American Red Cross, which also awarded medals and prize certificates. Fifty-one prize medals, and seventy-five prize certificates were awarded by the American Red Cross at nine large first-aid contests during 1915. The interest and keen rivalry which is developed at these contests is astonishing, and hardly more enthusiasm could be evinced at some of our large football or baseball games.

For some years the First Aid Division has been greatly concerned by the number of drownings occurring annually. That such interest is warranted may be gathered from the following

figures from Mortality Statistics of the United States:

Drownings.

	Suicide.	Accident.	Total.
1912			5789
1913	. 568	6468	7036

Accordingly, it was decided to make an attempt to prevent such loss of life through water accidents by organizing a Life-Saving Corps in the First Aid Division of the Red Cross to teach what may be called "water first aid." An expert life saver was added to the staff of the division on February 1, 1914, to act as organizer and instructor of local Life-Saving Corps. Since that date life-saving corps have been organized in nearly all of the principal cities east of the Mississippi River, and it has been planned to cover the larger cities of the Pacific Coast during the present swimming season. Since the organization of the Red Cross Life-Saving Corps 102 local organizations have been started, of which 35 have complied with all of the requirements and have been granted charters. The membership of the American Red Cross Life-Saving Corps in 1915 was increased by 409. The total number of members to date is 748, including corps members and members at large. Four prizes are awarded annually by the American Red Cross for the best instances of life saving which occur as a direct result of Red Cross instruction. The four prizes for "water first aid" are in the same amounts as the prizes for general first aid and first aid among railroad men. The first prize in 1914 went to a member of the Jacksonville (Fla.) Life-Saving Corps who rescued a man from drowning in the St. John's River, at Jacksonville, Florida, on the night of December 14, 1914, at the risk of his own life. It may be of interest to Marylanders to know that the first three local Life-Saving Corps of the American Red Cross were organized in Baltimore.

The First Aid Division is represented by membership in the National Safety Council and is also on special occasions represented at the annual meetings of medical societies. Two or three moving-picture reels and a series of lantern slides are available

for the use of our staff on public occasions. First-aid instruction is carried on at the Seamen's Church Institute in New York City, the instruction being given at the present time by a surgeon of the United States Public Health Service. Successful candidates are given Red Cross certificates of proficiency in first aid. From time to time we lend the services of our doctors to the Bureau of Mines for short details on their Mine Rescue Cars.

The large number of accidents which occur in the limestone, sandstone, cement rock and granite quarries have attracted our attention for some years, and it is hoped that funds will soon be available to enable this division to detail physicians to take up "instruction in first aid and accident prevention" among men employed in that work. There are many other industries to which it is eventually desired to extend our work, all of which will be undertaken when funds permit.

In this way, as I have outlined, the First Aid Division has endeavored to extend a knowledge of first aid and accident prevention to all parts of the country, assisting those who desire assistance, and co-operating with the medical profession at large.

One of the great objects which the Red Cross hopes to accomplish by its first-aid campaign, in addition to the primary humanitarian one of life conservation, is to obtain a reserve of trained men to use in time of war. Thousands of people who have been instructed in first aid by the American Red Cross are already favorably disposed toward our institution and will flock to its assistance should it be necessary to call upon them. In the event of war it is the duty of the American Red Cross to assist the Army and Navy. This duty has been placed upon them by the Presidential Proclamation of August 22, 1911, issued to comply with the provisions of the Geneva Convention. The proclamation states that the American Red Cross is the only association authorized to assist the armed forces of the United States in time of war and that any other civilian society desiring to help can only do so through the American Red Cross.

Orders issued by the War and Navy departments subsequent to the proclamation have definitely stated the character of the assistance they expect to receive from the Red Cross. In the organization of field, hospital and supply columns and information bureau sections the Red Cross will need not only professional personnel, but a large number of trained and untrained non-professional personnel. In the field and hospital columns, those who have been trained in first aid to the injured and transportation methods, and who are physically capable of acting as litter bearers, orderlies and attendants, will be greatly needed. It is expected that from the lists of the men who have been trained by the American Red Cross a large number of such can be obtained. Women who have taken the American Red Cross course in "first aid" will be of more value to the American Red Cross than those who have had no training, and if they have supplemented their instruction in first aid, with the course in "Elementary Hygiene and Home Care of the Sick," also offered by the American Red Cross, they will be considered as eligible for assignment to duty as "nurses' aids." In other words, where vacancies occur for "nurses' aids" in connection with Red Cross units when considering volunteers, women who have had Red Cross training will be given the preference.

It has been stated that wars are few and calamities are many. This is a truism, but even the most optimistic will not deny the possibility that our own country may become involved in hostili-

ties in the not distant future.

In closing it may be stated that while our first-aid work may not be perfect, and that possibly errors may have been made, we have nevertheless done much toward accomplishing the task that we have undertaken in a very satisfactory manner. Thousands of people have been reached, lives have been and are being saved, and the moral influence back of a nation-wide organization such as ours will enable the Red Cross to be what it hopes to be—an ever-increasing benefit to the people of our country. While we believe that a strong national organization like the Red Cross can accomplish more than numbers of isolated and independent bodies with similar ideas regarding first-aid instruction, we are nevertheless willing to co-operate with such societies in every way possible for the attainment of our common object, namely, the saving of life and the prevention of needless suffering.

Candy Medication. By Bernard Fantus, M.D., Professor of Pharmacology and Therapeutics, College of Medicine, University of Illinois, Chicago. St. Louis: C. V. Mosby Company. Cloth, \$1 net. 1915.

Getting medicine into a child is often fraught with the greatest difficulty. It is therefore particularly opportune that Dr. Fantus gives to the profession, or, at any rate, endeavors to impress upon the profession, a method by which it is easier to induce children to take medicine. He states candy medication has given such delightful results in practice among children that the method should be more widely known and used. If the method is to become more available, the author believes a basic formulary should be employed. It is with this formulary that the present work is concerned, and is the result of five years' experimentation and experience in private practice. Surely the administration of drugs to children in a palatable form should receive much thought; indeed, much more than is generally given. Candy medication from the experience of Dr. Fantus appeals to us as the ideal method. Those interested—and every doctor concerned with the management of children should be-should obtain the abovementioned book, and after a careful study of the method will find that he can get medicine into the child with less effort than by the employment of syrups, etc.

CHRONIC CYSTITIS—REPORT OF CASES.*

By A. G. Rytina, M.D.

When I scanned this program this morning and beheld the names of the celebrities thereon and saw mine heading the list, I felt at once embarrassed and surprised. Dr. Smith, our superintendent, who composed the program, must feel as I do, viz.: that since vice has been cleaned up in Baltimore city, genitourinary surgery is the most important in all the domain of medicine to you who are practicing in Baltimore county, especially those of you who are practicing in and around Highlandtown.

In the brief time alloted me I wish to present two interesting cases of chronic cystitis, which demonstrate at times the need of more or less radical means in alleviating conditions that funda-

mentally are more or less benign.

The first case I will show you is this young man, 28 years of age, who came from Savannah, Ga., complaining of marked frequency of urination and strangury. His family history is negative, and there is nothing of importance in his past history, excepting an attack of gonorrhea which he contracted six years ago. His present trouble began three years ago. One surgeon diagnosed stricture at neck of bladder and operated, but without result. Another failed to relieve him by operation for what he called bladder ulcer. When he came to us his condition was more aggravated than ever, being compelled to void every few minutes with a marked suprapubic pain that was not benefited by morphia. When the desire to urinate comes on, if he does not respond it will flow away from him. For the last six to nine months notices hematuria after defecation, sleeps poorly, has lost 25 pounds in weight.

Genito-uninary examination revealed the following: External genitals normal; there is no visible urethral discharge, and the voided urine is cloudy, containg on microscopic examination many pus cells, red blood cells, and organisms, staphylococci and bacilli. There was a heavy ring of albumin present, no sugar, no casts.

Rectal examination: No hemorrhoids. The prostate is normal in size and shape, but somewhat indurated in consistency. Both seminal vesicals feel normal. Functional kidney test: Phenolsulphonephthalein, 6 mg. injected intramuscularly, time of appearance 10 minutes, output for the first hour 60 per cent. Urethral examination: Large sized bougie a boule passes down to the external sphincter without encountering any obstruction or urethral thickenings. Urethroscopy shows in the posterior urethra an inflammed granular condition of the floor. The verumontanum is not increased in size; it is somewhat red and edematous, and projecting off from its superior surface is a relatively narrow polyp about 1 cm. in length. Cystoscopy: No residual urine, bladder capacity 30 cc. The introduction of the

^{*}Address delivered before the Baltimore County Medical Society, February 16, 1916.

cystoscope or any other instrument causes severe pain and involuntary bladder contractions. Any attempt to introduce fluid in the bladder through the irrigating cystoscope is impossible on this account, the fluid immediately escaping from around the instrument. Cystoscopy on this account impossible.

On account of the history of the case and these incomplete findings, the diagnosis of chronic cystitis was made. We felt that the kidney infection could probably be excluded on account of the history and normal functional output. The albuminuria was due to the blood and pus present in the urine. On account of the failure of the two previous operations, the impossibility of carrying out any local treatment in the bladder on account of the vesical irritability, a distinctly bad prognosis was given. The patient's condition being so miserable. I agreed, at his solicitation, to perform an exploratory suprapubic cystotomy, assuring him, however, of the improbability of any improvement. This was accordingly carried out, and we were surprised, on exposing and examining the interior of the bladder, that it showed only a very slight degree of cystitis and the bladder wall was only very slightly thickened. We decided then that the bladder was not directly responsible for the patient's condition, but that the polyp in the verumontanum and the posterior urethritis set up an irritable condition in the region of the vesical neck which was primarily responsible for the patient's difficulties. We then passed down through the bladder into the posterior urethra a sharp curette, and thoroughly curetted the whole posterior urethra. The bladder was sewed up around a rubber drainage tube and the patient sent to the ward. The tube was removed at the end of the fourth day, and from that day to this he has not experienced the slightest degree of pain; the suprapubic wound healed thoroughly in three weeks. His urine is now perfectly clear, free of albumen, and the urinary intervals have increased from 10 to 15 minutes to 2 hours and 20 minutes. Under hydraulic distention of the bladder (gradual dilation of the bladder by forcing fluid therein by means of bladder syringe or irrigator) we will gradually increase this man's bladder capacity so that he will be able, or nearly able, to retain his urine the normal limit of time. Endoscopy of the posterior urethra shows the verumontanum normal size, with two or three small granulation areas present on its top and lower walls. The polyp was thoroughly removed by curettage.

One of the surgeons who operated on him previously was curious to know just what was done to relieve his condition. He was a general surgeon, and did not avail himself of the advantage

which the urethroscopic examination gave me.

The second patient is this young girl, 18 years old, who was referred to me by Dr. O. O. Cooper of Hinton, W. Va., with the possible diagnosis of bladder tumor. Her family history is negative, with the exception that her father died of tuberculosis. Past history negative. Present complaint dates back to five years ago, when the patient noticed frequency of urination, voiding

every few minutes, both day and night, and hematuria. She voided only a few drops at each urination, and act was accompanied by a burning, stinging sensation along the urethra. There was much straining, and if patient did not void when the desire came, she would have incontinence. Symptoms are increasing in severity. She has received treatment in two different hospitals, but without any relief. At the last hospital she was cystoscoped and a possible diagnosis of bladder tumor was made. Vaginal examination (Dr. Gardner) negative.

Phenolsulphonephthalein, 6 mg. intramuscularly, 60 per cent. for the first hour and 10 minutes. Urine examination: Cloudy, many pus cells, few red blood cells, many bacilli, albumin, triple

positive, no casts, no sugar.

Cystoscopic examination: Cystoscope entered with ease. No residual urine. Bladder capacity 60 cc. No stone, no tumor or vesical diverticulum seen. Everywhere the bladder is highly infected and inflamed, and in several places large masses of mucopus are adherent to the bladder mucosa, which look somewhat like papillomata. These masses, however, can be dislodged by a stream of water through the cystoscope. The cystoscopy, on account of pain, straining and bleeding, is unsatisfactory. Diagnosis: Chronic cystitis. The diagnosis of bladder tumor could be almost excluded by the history and age of the patient. First of all, bladder tumors in children are extremely rare, and when they do occur they are usually met with between the ages of one and five years. They are clinically if not pathologically malignant, and their course is generally rapid and fatal.

We learn from this girl's history that the symptoms came on at the age of 13, a duration of five years, and her physical condition has been unaffected. The cystoscopic examination further clinches the diagnosis of chronic cystitis. Treatment: We tried first the regular routine treatment for cystitis, viz.: irrigation with boric acid and silver nitrate solution. Urotropin and much water internally, etc. We were not surprised that this treatment failed, as it was carried out in the two hospitals she formerly visited. We accordingly decided to do a suprapubic cystotomy, both for the purpose of drainage and exploration. It was thought possible that there might be something in the bladder which we failed to find with the cystoscope. At operation only a very small thickened contracted bladder was found, which was the seat of an intensive cystitis. The wound in the bladder was sewed up around a rubber drainage tube and the patient sent to the ward. Since the operation her pain has entirely disappeared, and the wound is healing nicely. We will not get as good a result in this patient as in the other case, on account of the contracture of the bladder not being due to irritability, but to true muscular hypertrophy of the bladder wall. However, the cystitis will be improved, and this will get rid of her pain and increase her capacity, but not to normal.

I thank you.

Book Reviews.

DISEASES OF THE SKIN AND ERUPTIVE FEVERS. By Jay Frank Schamberg, M.D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Third Edition. Thoroughly Revised. Illustrated. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$3 net.

Since the appearance of the last edition of Schamberg's Diseases of the Skin quite a bit of additional knowledge concerning syphilis, Rocky Mountain spotted fever, etc., has been added to what was previously known. The proper place of the Luetin and Wassermann reactions in their reliability as diagnostic agents is about settled. The same statement applies to the newer syphilic remedies. Consequently the present edition has been brought up to the last minute. As in the previous editions, so in this, one notes the prevailing tone of practicalness. It is a well illustrated, written and balanced piece of literature. While not overly full, still it is fulsome enough for its purposes, namely, a student's and general practitioner's handy reference book. These classes of readers do not desire a too full book, but one which contains the essential and necessary facts in as few words as compatible with a clear understanding of the problem under discussion. And they get it in this latest Schamberg's effort. It is modern, thoroughly reliable and thoroughly up to date. It gives us great pleasure to recommend it to our readers.

What to Eat and Why. By Carroll Smith, M.D., Boston, Mass. Second Edition, Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$2.50 net.

Herein the author presents to the medical profession the fundamental elements of food and the principles underlying its use. He tells why a change of diet is beneficial in such and such a condition, and the food which should be substituted. Much work has been done in metabolism and the relationship of food to disease within the past few years that the active, alert practitioner is now fully awake to the possibilities of combatting disorders of various kinds by a change of diet alone. The diet in typhoid fever, rheumatism, diabetes, gout, heart diseases, kidney affections, tuberculosis, obesity, etc., influence the course of the disease markedly. An injudicious diet can do much harm, whereas a proper one will go a long way to the restoral of health. It is with these problems that the book above mentioned deals. And as long as it not only gives the proper diet, but the reasons therefor, it should go a long way toward clarifying the mistiness concerning the correct diet in metabolic and systemic disorders.

A Textbook of Pathology. By Alfred Stengel, M.D., Sc.D., Professor of Medicine, University of Pennsylvania; Physician to the Pennsylvania and the University Hospital, and Herbert Fox, M.D., Director of the Pepper Laboratory of Clinical Medicine, University of Pennsylvania; Pathologist to the Philadelphia Zoological Garden. Sixth Edition, Reset. 468 Text Illustrations, Many in Colors, and 15 Colored Plates. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Cloth, \$6 net. 1915.

It can be described by no other words than absolutely perfect. This is another one of Saunders' brag books, and justly so, as it is about the best on pathology published. We are absolutely certain of our position when we state there are none superior and but few as good. In this edition much new material has been added to the sections on transmissible diseases, glands of internal secretion, inflammation, nutrition, metabolism, etc. It is today, as formerly, a standard work, and should prove satisfactory in every way to its owners. It gives us the greatest pleasure to recommend it to our readers, with the sincere belief that they will be more than pleased with the manner in which the authors have handled their task.

DISEASES OF THE NOSE AND THROAT. By Algernon Coolidge, A.B., M.D., Professor of Laryngology in the Harvard Medical School; Laryngologist to the Massacuhsetts General Hospital. Illustrated. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$1.50 net.

This book is nothing more or less than it professes to be, a manual. As such it should prove useful to students in gaining an insight into the basic principles of rhinology and laryngology. It is deleted of all superfluous material, containing only what is essential for a student to gain a proper perspective of those conditions embraced under the category of nose and throat diseases. After briefly stating the methods of examination, clinical history and anatomy and physiology of the nose, the author plunges into a discussion of the diseases of the nose, and in the following order—external nose, septum, nasal cavities, accessory sinuses, anatomy of the pharynx, the tonsilar ring, etc. Simple of diction, brevity of statement, accuracy of presentation of the several subdivisions should render the volume popular with students and general practitioners looking for good elements of rhinology and laryngology.

HOSPITALS AND THE LAW. By Edwin Valentine Mitchell, LL.B., of the Faculty of the College of Law, University of South Dakota; Author of "The Doctor in Court." New York: Rebman Company. 1915. Cloth, \$1.75 net.

In this book the author discusses the responsibilities of hospitals to their patrons. Many suits have been instituted against char-

itable institutions for alleged or evident ill-treatment. It is these that the author brings together under a single cover and analyzes. He distinguishes between an eleemosynary institution and one conducted for private gain. In the former the law holds that the board of trustees is not responsible for negligent acts on the part of its employes. Decisions on this point have been handed down upon numerous occasions, generally the judge holding that a person participating of charity cannot recover from a charitable institution because the funds of that institution would be diverted from the purposes for which they were intended. This is only an example of the law as it affects the hospital contained within this very meritorious little volume. Certainly it should find constant service in the hands of those engaged in protecting the legal interests of hospitals. A volume should be in the library of every hospital so that it is handy of access whenever needed.

A Textbook of Nervous Diseases. For Students and Practicing Physicians. In Thirty Lectures. By Robert Bing, Dozent for Neurology at the University of Basel. Only Authorized Translation. By Charles L. Allen, M.D., Los Angeles, Cal. With III Illustrations in the Text. New York: Rebman Company. Cloth, \$5 net. 1915.

Professor Bing presents the various manifestations of the neurophathies in a somewhat novel manner. Rather than taking up the individual diseases, he groups those of a similar character, thus saving space as well as mental effort in their comprehension. Starting with the diseases of the peripheral nerves, he states that the affections of the peripheral nerves agree so generally in their diagnostic relations that we can readily consider their symptoms from two clinical points of view. Without doing violence to the facts, we will hence consider in common all disturbances of conduction, whether of traumatic, neuritic or neoplastic origin, and after that will take up peripheral nervous irritative symptoms, which in part have their origin in neuritic processes, in part as neuralgias, can claim a certain clinical autonomy. He then enters into a review of those elements, such as trauma, cold, compression, toxemias, causing an interference with the conductivity apparatus, and in order the pathogenesis and pathological anatomy, the general symptomatology of interruption of conduction, viz., sensibility, motility, trophic functions, vasomotor functions, reaction of degeneration, and the special symptomatology of the defects of function in the different peripheral nerves. He handles the entire field of neurology by this method, and what could be simpler and more interesting. In most textbooks too much space is given to reiteration, a neuritis is a neuritis wherever found, only differing from one and another according to the special function of the nerve involved. What is the use of stating time and again there is pain, loss of motion, etc.? One statement is sufficient. The only additional information that is necessary is that in loss of

the conductivity properties of the musculo-spiral there is wrist drop, in oculo-motor palsy ptosis, etc. If the book serves no other purpose, it gives us a change of diet and awakens renewed interest in the subject by presenting it in an entirely different manner than the other books. He has subordinated the topographical and pathologico-anatomical classification to the etiological and pathologico-physiological. By this arrangement he has been able to produce an ideally practical book for the general practitioner, taking up, in order, diseases of the peripheral nerves, the dyskinesias, progressive muscular atrophies, spastic spinal paralysis, hereditary family ataxias, multiple sclerosis, further diffuse diseases of the spinal cord, the syphilogenic diseases of the central nervous system, etc.

There is entirely too much similarity in the method of presenting most medical subjects. One man starts the fashion and the rest follow as a matter of course. As a consequence, the books do not represent the individuality of the writer. This book at a glance shows us that the writer is master of his subject, and has a wide comprehension of neurology. It is a thoroughly modern presentation of those affections relegated to the field of medicine spoken of as neurology. It is practical, and should be immensely helpful to those seeking information about the common neurological affections.

THE OBSTETRICAL QUIZ FOR NURSES. A Monograph on Obstetrics for the Graduate and the Undergraduate Nurse in the Lying-in-Room. By Hilda Elizabeth Carlson. New York: Rebman Company. Cloth, \$1.50 net. 1915.

This book is no more nor no less than it claims to be, namely, a quiz compend, but it is an excellent example of its class, being sufficiently comprehensive for the nurse's purpose and withal so plainly put that the user cannot help but be benefited by its use. The whole field of obstetrics is thoroughly covered, besides much collateral material, such as the anatomy of the new-born, infant feeding, etc. Labor, both normal and abnormal, is thoroughly discussed as it affects the nurse. Its utilization by the nurse, both graduate and undergraduate, should prove extremely beneficial when unexpected emergencies arise. It gives us great pleasure to recommend it to our readers.

SURGERY OF THE BLOOD VESSELS. By J. Shelton Horsley, M.D., F.A.C.S., Surgeon in Charge of St. Elizabeth's Hospital, Richmond, Va.; Founder and Fellow of the American College of Surgeons; Ex-President of the Richmond Academy of Medicine and Surgery; Member of the Southern Surgical and Gynecological Association, etc. Illustrated. St. Louis: C. V. Mosby Company. 1915. Cloth, \$4.00 net.

Many, many years ago Lambert successfully sutured a ruptured femoral artery by a technic somewhat similar to the old method of repairing hare-lip by pins. Since that time until within a very re-

cent period practically little advance had been made in vascular During the past decade, however, rapid strides have been made in this particular field, and mostly by Americans. Murphy. Matas. Crile and Carrel and Guthrie have led the way, followed by a host of imitators. The former and their disciples have shown that suturing of rents in blood vessels, substitution of segments for chasms, union of artery to vein, thus reversing the current and the restoration of an artery to its normal dimensions when dilated are all possible as well as practicable. Americans should feel proud of this work, for it is pioneer in character and opens up unthought-of vistas, such as the transplantation of organs, etc. The monograph by Horsley in simple language unfolds what he has accomplished along these lines, together with the accomplishments of his contemporaries. It is exceptionally well illustrated, of pleasing style, and practical, thereby making it useful to surgeon and practitioner alike.

Principles and Practice of Physical Diagnosis. By John C. Da Costa, Jr., M.D., Associate Professor of Medicine, Jefferson Medical College; Assistant Visiting Physician, Jefferson Hospital; Consulting Physician, Northwestern General Hospital; Fellow of the College of Physicians of Philadelphia; Fellow of the American Academy of Medicine, etc. With 243 Original Illustrations. Third Edition, Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$3.50 net.

Da Costa's Physical Diagnosis has so established its worth that it is untirely unnecessary for this reviewer to give forth utterances of commendation. The fact that it is another effort of John C. Da Costa is sufficient guarantee of its thoroughness, usefulness and reliability. Every one sooner or later must decide upon the acquisition of a more modern physical diagnosis than the one in his possession, as this feature of medicine, like all others, is continuously changing. Day by day old methods are discarded for newer, better and more simple, as well as daily new points are being added to facilitate the recognition of the disorders of the human machinery. It is with these instruments of detection that Da Costa's Physical Diagnosis deals, and the reviewer is pleased to report to the readers of the MARYLAND MEDICAL JOURNAL that the author has handled the subject with that same keen insight into the useful as in the previous editions of the book before us. The sailor without a compass would soon be lost at sea, so will the medical man without a proper appreciation of the normal and abnormal appreciation of the body. This volume offers those desiring a thoroughly modern exposition of those measures which are in employment of progressive physicians of the day in arriving at and performing a systematic, scientific physical examination. is therefore with the greatest of pleasure that we place our stamp of approbation upon the book.

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BALTIMORE, JUNE, 1916

THE DUCTLESS GLANDS.

Though the profound influence exerted by the removal of the sexual organs of the young was thoroughly recognized by both physician and laity since the very earliest days, and must have been the foundation of much speculation, it was not until Addison in 1855 in a description of the destruction of the suprarenal glands in the disease which bears his name first directed the attention of the profession to the relationship between the diseased gland and the disease. The clinical findings were definitely proven to depend on a definite pathological lesion. Then, little by little, our knowledge concerning the important role played in the human economy by these, for the most part, small organs has been increased by the investigations of a host of observers. Gull, Ord and Charcot first described myxedema clinically and Theodore Kocher and Reverdin demonstrated that this picture is due to the absence of thyroid secretion. Next Moebius expressed the opinion that exophthalmic goitre depends upon an abnormally increased activity of a ductless gland. These observations were the forerunners of the now naturally accepted view that a lack or abnormal activity of the ductless glands exerts a powerful influence on the well-being of the body. It is pretty generally accepted by the profession that the absence of the thyroid secretion is the element underlying the disease called Cretinism and an excess of the secretion of exophthalmic goitre. Likewise the presence or absence of the internal secretion of the pituitary gland produces a definite clinical picture, and so

with the removal of the sexual organs, the pancreas, the adrenals, the parathyroids, the thymus, etc. Aromegaly is now known to be due to an increased activity of the function of the hypophysis and infantilism to a decrease in the functional activity of that gland. Though these secretions have not been isolated in pure form, still by disease and by pathological experiment it has been proven peradventure that they exert a powerful influence in regulating the complex processes sustaining life. Biedl expresses this view very happily, viz., Formerly every correlation of organs was regarded as nervous: today, however, even nervous actions are regarded as brought about chemically. In other words, that the correlation of the bodily processes is a chemical not a nervous phenomenon. It is needless to speak of the influence of the ductless glands on growth —you all are fully aware of the overdevelopment of the castrated cat, the slender lines of the eunuch, etc., but, perhaps, you are not so well acquainted with the influence the ductless glands exert in regulating metabolism. Carbohydrate metabolism is regulated by the pancreatic insular apparatus, the destruction of which the carbohydrate equilibrium of the body is markedly disturbed. These and many other questions of more than passing interest to the profession are thoroughly discussed from a clinical standpoint by Meyers in a translation of Falta's The Ductless Glandular Diseases. So many of the obscure clinical manifestations of a disturbance of the physiological status of the body are due to some derangement of one or another, or a group of these organs, that too intimate a knowledge of the clinical signs associated with this or the perversion of the secretions of that gland of internal secretion cannot be had. There is no doubt that it will be welcomed by our readers, as in it are found accurate and detailed descriptions of all of the symptom groups which have their origin in lesions of the internal secretory glands. It should prove doubly welcome, as it contains, not only bedside observations, but also the record of Professor Falta's laboratory investigations.

Medical Items.

TWENTY graduates of the Training School for Nurses of Mercy Hospital received their diplomas at the commencement exercises, May 16th, held in the amphitheater of the College of Physicians and Surgeons. A gold medal was awarded to Miss Genevieve M. Biesecker for attaining the highest average.

THE graduating exercises of the class of 1916 of the Training School for Nurses of the Hebrew Hospital was held at Lehmann's Hall, May 17th. There were eight graduates.

THE graduating exercises of the nurses of the class of 1916 of the Church Home and Infirmary Training School for Nurses were held at the Home, May 10th. There were fourteen graduates.

Dr. George E. Lancaster, for fifteen months a member of the surgical staff of the Franklin Square Hospital, has resigned.

At a meeting of the Faculty of Physic of the University of Maryland, School of Medicine, and College of Physicians and Surgeons, May 5th, the first step toward the admission of women as students on an equal footing with men or on any footing in the medical department was taken, when their admission was recommended. Action was deferred until the meeting in June. Many of the professors are in favor of the movement, and it stands an excellent chance of being made a part of the policy of the department in the near future.

Another step decided on at the meeting of the faculty was that the senior class beginning next session will be divided into trimesters, instead of the usual semesters and the students will be required to spend one-third of their time in the University Hospital, one-third in the Mercy Hospital, and one-third in the Maryland General Hospital. While at the University Hospital, the senior students will live in the hospital itself and be assistants in clinical work.

Dr. James M. H. Rowland was elected dean to succeed Dr. William F. Lockwood, resigned. Dr. Randolph Winslow was elected president of the faculty, Dr. John W. Chambers, vice-president, and Dr. William S. Gardner, secretary. Dr. William Simon resigned as professor of chemistry; Dr. Henry J. Walton was made associate in Roentgenology and placed in charge of the X-ray work of the hospital, vice Dr. Henry Chandlee, deceased; Dr. Robert P.

Bay, associate professor of clinical surgery; Dr. Frank Lynn, associate professor of surgery, and Dr. Charles E. Simon, professor of chemistry and a member of the Board of Regents; Dr. Hiram Woods, professor of the eye and ear and a member of the Board of Regents.

THE one hundred and eighteenth annual meeting of the Medical and Chirurgical Faculty of Maryland, was held in Baltimore, April 25th to 27th. Officers were elected for the ensuing year.

The first case of smallpox at Quarantine since last year was taken from the British freighter Strathness, May 15th, by Quarantine Physician Thomas L. Richardson. The ship was from Oran, Algiers, and the patient a native of the tropics. The case was a mild one. The ship was detained at the station for fumigation and the vaccination of the crew.

The Faculty of Physic of the University of Maryland, School of Medicine, and College of Physicians and Surgeons, Baltimore, announces that beginning with January 1, 1918, two years of premedical work of college grade will be required for admission.

About one hundred and fifty physicians of Baltimore and other cities united in paying tribute to Dr. Randolph Winslow, at a testimonial dinner given at the Belvedere Hotel, May 8th, in honor of the completion of his twenty-fifth year as a member of the major faculty of the University of Maryland. Dr. William P. Stubbs was chairman of the committee on arrangements.

A GIFT of \$150,000 has been made to the Johns Hopkins Hospital by the will of Miss Jessie Gillender, who died at Los Angeles, Cal., in February, 1916. A part of the money is to be used in scientific research into the cause, prevention and cure of epilepsy. It is thought that this laboratory will be connected with the Henry Phipps Psychiatric Clinic. The gift opens a new field for research work at the institution.

Dr. And Mrs. Thomas R. Brown, who have sold their country place at Ruxton, Md., expect to build a residence in Guilford. During the winter they have been occupying their town house at Biddle street and Maryland avenue.

Dr. Frederick N. Tannar who recently underwent an operation for appendicitis at the

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THE EVOLUTION OF NURSING.*

By Harvey G. Beck, M.D.

When Sister Imelda invited me to deliver an address on this occasion I assured her of my high appreciation of the honor. My pleading that I should find an excuse to be out of the city on the day of the commencement was without avail. With her usual tack and diplomacy she simply remarked "Think it over." Now, I should like to know who, after solemn, serious thought, could refrain from accepting an opportunity to pay a tribute to the noble cause these worthy, self-sacrificing women of the Sisters of Mercy espouse, and to add a few words of praise and commendation to the young ladies who so studiously and diligently pursued their course of instruction at the Training School of the Mercy Hospital for three long years, and whose graduation we are here to honor today.

In glancing over the literature to find some basis for my remarks I was imbued with the fact that the history of nursing is one of the most interesting subjects I have ever delved into. Nursing for thousands of years has been so closely interwoven with science and religion, war and pestilence, ignorance and superstition, and is so replete with notable characters of men and women whose acts of heroism, self-sacrificing love and devotion to the care of suffering humanity, that it makes this field for study extremely broad in domain and rich in material. Indeed, it was with fear and trepidation that I chose for my subject "The Evolution of Nursing," feeling that I might not be able to keep my remarks within that soul-saving time limit Professor Hadley recently referred to.

One day a visiting clergyman who was to preach before the students at Yale University asked how long he was expected to talk. "Of course, we put no time limit upon you," replied President Hadley, "but we have a feeling here at Yale that no souls are saved after the first twenty minutes."

^{*}Address delivered at the Commencement of the Mercy Hospital Training School for Nurses, May 25, 1915.

Should I fail to save every soul here from going to sleep, you will have to blame it on my ardor and enthusiasm over the subject.

Nursing as an art is said to be the oldest occupation for women; as a science, the youngest branch of the medical profession. The first mother performed for her little ones all those services that made it possible for them to live, and to these maternal cares may be attributed the foundation from which

the profession of nursing has developed.

According to John Fiske, the longer period of time during which the human infant is helpless and dependent evokes a prolonged and enduring tenderness in the parents, with the resultant superior development of character. In addition to this parental instinct, there is a second—that of mutual aid, which is found in animals as well as in man, and tends to the preservation of species. This latter has even been observed among savage races. In the animal kingdom one may see splendid examples of "first aid" to the injured. Apes stop bleeding by compression; birds have been known to treat fracture of the leg by splints and grasses, and injured deer travel many miles to immerse an inflamed wound in water. A forrester who observed this latter fact was responsible for the beginning of the water cure in Europe. Cats and dogs when not well eat familiar grasses and weeds. It may thus be observed that animals, through instinct, possess a vast fund of practical knowledge. The same was true of primitive man until the instinct was crowded out by overcivilization. In the remote mountain districts at the present day there still exists a type of mother and grandmother who, with their intimate knowledge of healing herbs, serve as both doctor and nurse for their families. As the knowledge of herbs became more extended, there were those who devoted their time to healing, such as the medicine man, witches and sorcerers, priests and priestesses of pagan nations. These had associated with them assistants, usually the women of the tribe, who were skilful in the dressing of wounds, and acted somewhat in the capacity of nurse. Among these practitioners there were those who were good and evilly disposed, and their art became known, respectively, as "black" or "white" magic, a distinction which lasted throughout the Middle Ages.

Among savage tribes practical nursing of a certain kind was not to be despised. They could dress wounds, massage the various parts of the body, make helpful teas from herbs, and even give sweat baths. Bleeding and cupping, amputation of limbs, trephining and many other operations that, in the present day are considered grave, were successfully performed. Vaccination against smallpox has been practiced from time immemorial

by certain savage tribes.

From earliest times to the Christian era very little is definitely known about the special duties of the nurse; yet there is a reference in the writings of a physician of India, Charaka, 320 B. C., who mentions a nurse as one of the four requisites for a cure

and defines her four qualifications—"knowledge of the manner in which drugs are prepared, cleverness, devotedness to the patient and purity of mind and body"—qualities as essential today as they were in the days of Charaka.

During the pre-Christian era the historical records of nursing are broken and incomplete, but beginning with the early Christian workers there is a continuity of record up to the present day,

a period of nearly two thousand years.

During the early Christian era the work of nursing was divided quite evenly between men and women. Among the first church orders of women engaged in nursing were the Deaconesses, Widows and Nuns. Later among the men were the military and religious orders, who devoted much time to nursing through medieval times.

Phebe, the first deaconess, of whom St. Paul said, "She hath been a succourer of many and of myself also," was one of the distinguished personages of her day. Besides performing many secular and clerical duties, it is said of her that she was the first parish worker, friendly visitor and district nurse, and from her day the work of visiting nursing has been in continuous practice.

The origin of hospitals may be traced back to the order of deaconesses, who not only visited the sick, but also brought them into their own homes to be cared for. The modern hospital grew out of this system, first, by using rooms in private houses, then additions or cloisters added to the homes, and finally separate hospital buildings. The necessity for both hospitals and nursing was occasioned by the pestilences, pilgrimages and crusades.

Pestilences and pilgrimages were closely associated, since the latter was the great source of spreading epidemics. Certain of the religious orders devoted themselves to nursing of the sick and maimed on their pilgrimages. This led to the establishment of hospices and hospitals. Among the patrican nurses were two distinguished women—Fabiola, who built a hospital in Rome, and Paula, who built hospitals for the pilgrims, one on the road to Bethlehem and one in Jerusalem, and who herself looked after the sick.

One of the earliest known instances of nursing in the noble struggle against misery waged by the early Christians was during a violent pestilence in Alexandria between the years 249

and 263 A. D.

A century later, during a frightful epidemic of the plague, St. Ephrem bought, from money donated, 300 beds, which he placed in public porticos and galleries, thus establishing the first hospital in the strict sense as the term is used today. At about this same period, on account of the numerous lepers and a great famine, Basil established the most notable hospital of all the early institutions. The staff consisted of nurses, doctors, carriers and artisans.

Beginning with the fifth century, or the rise of monasticism,

there is a wonderful record of religious nursing of a thousand years and more. This extended through the Middle Ages, with their vast, wealthy and beautiful monasteries and hospitals and the supremacy of monastic orders, and down to the present day, when, on account of the modern sciences, new economic and social adjustments, this system of nursing no longer obtains. However, these old religious orders are still models of organizations and discipline.

Medicine as well as nursing was almost entirely within the province of the church, and both were conducted on a high plane until the latter part of the seventeenth century, when the status and competence of the female attendant had sunk as low as the hospital in which they served. This was almost universally the case outside of the Roman Catholic orders, in which discipline and

decency still prevailed.

The period between the latter part of the seventeenth century and the middle of the nineteenth century was known as the "dark age" of sick nursing. A brief description of conditions as they prevailed in several of the world's oldest and most famous hospitals will best serve to illustrate the chaos and downfall of both

medicine and nursing during this age.

Hotel Dieu, a leading hospital in Paris, was established in 650 A. D., and for twelve centuries the Augustinian Sisters served the institution. Their lives were so intimately intertwined with their work that they had no other home, for here they lived from the day of their profession to the day of their death. Their lot was needlessly hard, without professional instruction, intellectual life or outside amusement. A little over one hundred years ago the servant nurse was introduced. The condition of the hospital at this time was in an appalling state. Tenon describes it as containing 1219 beds, 733 of which were large, holding from two to six patients, and 486 smaller ones. They stood in two, three or four rows, the small and large being mixed together, and so unevenly placed that some could only be reached from the foot, others from the side. In 1873 a famous Vienna surgeon in describing his rounds said that in one bed he had noticed one patient dead, two others dying and one convalescent. The beds were of wood, with shelves at head and foot to hold patient's medicines, and made with heavy straw mattresses and a feather bed on top. White muslin bed curtains were used in summer and red serge in winter. The huge beds occupied so much space that cleaning was impossible. The walls were filthy with the expectoration of the patients, and it was impossible to prevent bed bugs. Itch and scabies were general. The former was of such a malign character that it caused suppuration and gangrene and destroyed many eyes. The operating-room, where they trephine, cut and amputate, contains at once those who have been and are to be operated upon as well as those undergoing operations. They all see the preparations for torture and hear the cries of agony—all this before the days of anesthesia. The secular nurse had poor and inadequate rooms, and when sick was placed in the loathsome ward beds with the

patients. The historian refers to other wretched conditions in

the hospital which he says are indescribable.

In England conditions were no better. Indeed, there was practically an absence of nursing after the suppression of the convents and the expulsion of the religious sisters from the hospitals during the reign of Henry VIII in 1523. In 1665, 65,000 died of the plague in England. Smallpox also regularly caused ten per cent. of all deaths.

For seven hundred years famine and pestilence were horribly associated. The houses, damp and cold, without ventilation or drainage, invited illness, but in time of pestilence stricken persons were locked in them to die or recover without nursing or medical aid. The pesthouse, which, fortunately, is now passing out of existence in civilized countries, was a place of untold horrors.

Ignorance of disease and superstition in medicine reigned supreme at this period. Going back through ages the healing god had given place to the healing saint, and now the saint was sometimes displaced by the King. For a long time the "King's Touch" of Charles II was supposed to cure the King's evil or scrofula. About 92,000 persons, including a man of no less intellectual

attainment than Samuel Johnson, sought his magic touch.

Hospitals were likened unto prisons, and with municipal and State control the religious order gave way to the servant nurse. These were poorly housed, ill-fed, overworked and underpaid, ignorant, untaught and unorganized, and were kept in a state of abject degradation. Their hours on duty were from twelve to fortyeight, twenty-four being quite the ordinary. The result was that only women of the Sairey Gamp type as portrayed by Dickens were available.

As to the duties of the nurse, let me quote some of the rules that were enforced in St. Thomas Hospital, the institution in which Florence Nightingale began her wonderful reform: "She is to make all the beds on one side of the ward, and to scour and make clean the bed and floors of the whole ward, with the tables and forms, the passage and stairs and garrets; to assist her, she may take such patients as the sisters shall think fit and able to help her. She must keep clean, scour the cans for beer, the broth pails, pans, platters and plates, etc., fouled at dinner. She must attend the butler at the ringing of the beer-bell, and take with her such patients as are able to carry the beer in safety to the ward, and not suffer such patients to waste or embezzle it by the way, but see that the cans be carried full into the ward; and in like manner, at his ringing the bread-bell, she must attend and take the just number of loaves for the patients who are entitled to it; and also at the ringing of the cook's bell she must attend her and receive from her the exact quantity of provisions that are appointed for each patient."

Such a regime held out quite an inducement to ward patients, but the nurse had her emoluments as well. At St. Thomas her salary consisted of nine shillings seven pence a week, and beer. At St. George's Hospital they received six pounds of bread a week,

one-half pint of milk and two pints of beer daily, and one shilling

a day to buy additional food.

In Austria the same inhuman conditions existed, and still exist, in the world's renowned hospital in Vienna—the Algemeines Kraunkenhaus. There one finds the same nursing personnel. Not many years ago, while I was pursuing studies in the wards of this hospital, the nurses were highly inferior intellectually, slovenly in their habits and dress, and of the servant type. They slept in small cubicles in the wards of both male and female patients, and their meals, which they had to bring up themselves, they ate in the wards. This institution gave twenty-four hours duty, alternating with a day of three short periods.

These few glimpses into the dark period of nursing will arouse one to a fuller sense of appreciation of the remarkable evolution which has taken place in nursing in the past five or six decades. Out of chaos and degradation has emerged in this short time

one of the loftiest and noblest of professions.

The establishment of a school for the special training of deaconess nurses by Pastor Fleidner and his wife, Frederike, at Kaiserwerth in 1836 marked the beginning of a new epoch. This institution soon became celebrated, and its influence was rapidly spread by Elizabeth Fry, who was so inspired with the work of Fleidner that she established a religious school for training nurses in England, and by the immortal Florence Nightingale, a pupil at Kaiserwerth, who has made nursing the model institution which it is in English-speaking countries today. Florence Nightingale, who had gone to the Crimea with thirty-four nurses, ten of whom were Sisters of Mercy, to care for the wounded on the battlefields, called attention to the inestimable value of organized and systematized nursing, and at the close of the war a fund of \$250,000 was raised with which in 1860 she established a school for the education of women as nurses at St. Thomas Hospital.

In 1887 Queen Victoria gave \$350,000, the surplus of the Women's Jubilee Offering, to the founding of a similar institution. The so-called Nightingale nurses soon filled vacancies in other large hospitals, and thus brought about a regeneration of English

nursing.

The American schools of nursing were modeled after the English. As early as 1798 lectures were given to the nurse attendants in the New York Hospital by Dr. Valentine Seaman, but regular training schools were not established until 1873. That year one was established at Bellevue Hospital, one at New Haven

and one at the Massachusetts General Hospital.

The establishment of these schools was the beginning of a new era of nursing in America. The progress from this day was in leaps and bounds. Schools were organized in rapid succession, so that at present there are at least five hundred in the United States. The course of training was conducted on a strictly ethical and scientific basis—in short, a new profession was born, unique and distinctive in character, a department of modern medical science. Today the profession of nursing in America ranks fore-

most in the world, and the American nurse has become the ideal. To even mention her remarkable achievement and her widespread and elevating influence in the public, domestic and social life of our country would at once break my "soul-saving" pledge. For this information I refer you to those interesting volumes on the "History of Nursing," by two eminent American nurses, Miss Nutting and Miss Dock, and shall now proceed to what concerns us more personally on this occasion and tell you who is who today, and why.

Need I tell you who is who today? These ladies of the graduating class, their friends and sweethearts, can answer this question. Reasoning from cause to effect, I must first answer the question "why." The Sisters of Mercy are too modest to do this. Nevertheless, they are responsible for who is who today.

The order of the Sisters of Mercy was founded by Mother Catherine McAuley in Dublin in 1827. The order was first in-

troduced in the United States in 1843.

The visitation of the sick is one of the duties of the Order of Mercy. When this order was founded, hospitals and homes for the needy were not provided as they are now, and consequently there was a necessity for somebody to look after the poor sick in their homes, and this duty Mother McAuley assigned to her daughters.

All who know the Sisters of Mercy remember the little brown visitation basket which was always seen in their hands on their visitations to the sick. Refreshments were taken and relief was

rendered in whatever way it was most needed.

As already mentioned, at the outbreak of the Crimean War in 1854, Florence Nightingale asked for ten Sisters to accompany her to the Crimea. A temporary hospital was erected at Balaklava, and the Sisters nursed until the close of the war, when they were recalled to Ireland. Two Sisters died during that time, and

were buried on the Crimean peninsula.

During the Spanish-American War, in 1898, twelve Sisters of Mercy entered Chickamauga Park amid 80,000 troops. These were the first women to take up nursing in that park. They were sent to the scene of war by the United States Government. Later on they were complimented by President McKinley for their efficient nursing, great kindness to the soldiers and self-sacrificing work. The order lost one of the members of the nursing corps, who was taken down with the fever and died.

They founded the old Mercy Hospital in 1871. In 1897 they opened the Nurses' Training School. Prior to that date the Sisters had done all the nursing themselves. Because of their moral and religious, in addition to their intellectual and nursing, training they are pre-eminently qualified for conducting a school for the training of nurses. It is their firm conviction that the heart as well as the head and hands must be trained, for a nurse without a heart or soul that adapts itself to this noble work is utterly unfitted for the proper exercises of her duties.

And now, to the ladies of the graudating class-well, I hardly

know what to say, especially since some of them requested me to say "the real nice things about the nurses," such as Dr. Harry Friedenwald said in his address a year ago. Indeed, I should quote his address in full had he not said so much and paid so many glowing tributes. However, on second thought, I find his remarks do not apply at all to this class. For, while he was addressing the best class of nurses ever graduated up to a year ago, I am addressing a better one today, for in the very nature of the rapid evolution of nursing each succeeding class must needs be better. Therefore, let me congratulate you upon the proud distinction you have won. You have chosen a noble calling, a self-sacrificing one, altruistic in character and full of service to suffering humanity. Remember, this is only the beginning of your career. The responsibilities will now be shifted from the Sisters of Mercy to your shoulders. Bravery, courage and conviction must characterize your efforts. Practice the precepts taught by the Sisters and never allow your heart and soul to get out of the work and dampen your ardour and love of devotion to duty. You may have to sail many troubled seas, and it may be said of you, as a little girl said of me one day when a neighbor asked her how her sister Helen was. She replied, "Oh, she is well. She got well as soon as the doctor quit coming." However, you can rest assured that good, honest service is always rewarded.

Work is the keynote to success, but let me emphasize that recreation is necessary for efficient work and must not be neglected. According to Cabot, men live by work, play, love and worship. They are as essential to your individual welfare and happiness as food and raiment. Keep these requisites always in

mind, and success will crown your efforts.

There is another phase of this important subject upon which I do not have time to dwell. It is the gratitude of the patients to

whom your knowledge and skill is applied.

To conclude my remarks I will quote a few lines from an ode to the nurses, written by a patient of Mercy Hospital whose heart was touched with the loving and tender care she received at the hands of these nurses who are graduating today.

"Her very presence seems to help us,
As our fevered pulse she feels,
Her soft white hand with gentle touch
Soothes and helps our wounds to heal,
The gentle little nurse at Mercy.

"With a heart that is true and tender,
Her sympathies are with us in pain;
She ministers to us in suffering,
And sends us home well again,
The kind little nurse at Mercy.

"Blessings upon her, yes, every one,
Is my prayer to the Father above,
Giving their lives in service to others,
These ministering angels of love,
The God-given nurses at Mercy."

AN ANSWER TO THE QUERY: SHALL THE CITY OF BALTIMORE SURRENDER QUARANTINE TO THE FEDERAL GOVERNMENT? *

By J. A. Nydegger,
Surgeon, United States Public Health Service.

Mr. President, and Members of the Medico-Chirurgical Faculty:

It gives me great pleasure to appear before you for the purpose of saying something on the much-discussed question, "Shall the City of Baltimore Surrender Its Quarantine to the Federal Government?" Those of you present who happen to reside in this city know this is a question to which I have paid considerable attention during the past three years.

Maritime quarantine protects more than a city; it protects an entire State, and even other States which are liable to become infected by dangerous contagious diseases by reason of persons coming from foreign places where these diseases prevail and passing through quarantine into the city or going to parts in the State

outside of the city or to places in other States.

It is for this reason, gentlemen, that I put myself in the somewhat embarrassing position of writing to your president and suggesting to him to have this question placed on the program for the meeting.

I shall be as brief as possible in my remarks, and will endeavor

to touch only on the most vital points of this question.

The history of quarantine is a long one, and, as originally applied, it meant 40 days detention of vessels and persons in quarantine, and comes from the Latin word "quarante," meaning

forty.

To the city of Venice must be given the credit of having established the first quarantine of the world, when it put into use a quarantine against epidemic diseases coming from the East along the lines of maritime commerce in the middle of the fourteenth century. The physicians of those days knew nothing of the period of incubation of communicable diseases, and to make sure of taking no risks, all persons found suffering from any of the dangerous epidemic diseases were subjected to a like period of quarantine, namely, 40 days.

Almost from the time since quarantine was first put into effect a tendency existed to make it uniform not only in a city or country, but throughout all of the leading countries of the world. There were important commercial reasons for this as well as others, for health, quarantine and commerce have always been intimately connected. So important were these features to the welfare and prosperity of any country that France, under Louis

^{*}Address delivered at the annual meeting of the Maryland Medico-Chirurgical Faculty, held in Baltimore, April 25-26, 1916.

XIV in the seventeenth century, first promulgated the order that took from its many cities and local boards of health, which maintained each a different set of quarantine rules and regulations, and gave the first general sanitary regulations for the whole of France and thus established the fact that maritime quarantine is a function to be executed by the country at large, and not by a province or city.

A step forward in the application of quarantine throughout Europe was when the first International Sanitary Conference was held in Paris in 1851, attended by the representatives of the 12 leading European countries most actively engaged in maritime commerce. This conference resulted in the formulation of a code of more scientific quarantine measures, to be enforced uniformly

at the ports of all countries represented.

In 1903, at a similar congress held in Paris, 20 leading powers, including the United States, signed what is known as the International Sanitary Agreement, which provided for uniformity in the quarantine rules and administration of them in the seaports of the countries there represented. In the 19 other countries represented at this congress the matter of maritime quarantine had long since been recognized as being pre-eminently a function of the general government, and control of their quarantines has centuries ago been transferred from province and municipality to their respective governments.

The development of maritime quarantine in the United States is practically a duplicate of the development of quarantine in

European and other trans-oceanic countries.

In colonial times the different Legislatures had control over the quarantines, a power which was inherited by the States and municipalities, and is still exercised by them in the ports of New York and Baltimore.

After the first sanitary conference, held in Paris in 1851, it became evident that the non-uniformity of the laws regulating quarantine in the different States of this country not only caused inconvenience to freight and passenger traffic, but was a positive menace to public safety. Some ports, for the purpose of attracting commerce, would be lax in following the strict regulations which they had imposed on themselves, while others would make mild regulations with the same object of getting trade, thus fre-

quently admitting dangerous epidemic diseases.

In the meantime, although there were no acts passed which gave the Federal Government direct power over the quarantine at all ports of the country, the trend of all the legislation in this connection was toward this goal. A number of national quarantine acts were passed from 1799 to 1893. From time to time also acts were passed increasing the powers and broadening the shpere of work of the Federal public health service. All these acts, however, provided that the measures were for the purpose of aiding the State and municipal authorities, and did not give the Federal Government the power of supervision over them.

This was first done by the act of 1893, which gave the Secretary of the Treasury, through the Public Health Service, the power to promulgate uniform quarantine regulations for all the ports of the United States, which rules must be enforced by State and municipal authorities if they chose to undertake to enforce them, and in case of their refusal or failure to carry out these regulations, the President is empowered to detail Federal public health officers for that purpose.

This act also gave the Public Health Service the power to examine the quarantine stations of a State or municipality and their regulations. The act further forbids any decrease in the application in quarantine of the Federal regulations, but does not prevent additional requirements that may be imposed by State or municipal quarantine authorities. Also, where a State or municipality shall transfer to the United States their quarantine stations,

they shall reasonably be reimbursed therefor.

Following in the footsteps of what all other maritime countries of the world a long time ago effected, the process of transferring from State and municipal to Federal control all of the quarantine stations in the United States has been steadily going on since the passage of the act of 1893. Of the grand total in the United States of 50 such stations, 48 have been transferred already, leaving but 2—New York, which is about to establish by law what it has already established in practice, and Baltimore, which stands in a class alone as being the very last city in the world to take steps to transfer its quarantine to Government control.

The city of Baltimore has been playing in great luck since 1892. At that time cholera prevailed extensively in certain European countries, and there was great danger of its introduction into the United States in the person of immigrants arriving at our ports from the places where the disease prevailed. At that time the Federal Government, recognizing the unprepared condition of this city's quarantine station and the danger of cholera gaining access to the country through it, established at Old Point Comfort, Va., a quarantine station, and came to the relief of the city, and thereby averted a threatened invasion, much to the relief of the

people of Baltimore and the country at large.

Owing to the long continued state of war in several of the European countries, which in normal times furnish 90 per cent. of the immigrants arriving in the United States, and owing to the great spread of the dangerous diseases, such as typhus fever, plague, cholera and smallpox in these countries, and the great danger of these diseases being introduced into the United States in arriving immigrants, it seems imperative that some action should at once be taken by the people of Baltimore to prevent the introduction of these diseases into the city through a quarantine station, which in its present absolutely inadequate size and condition to care for any number of detained immigrants or others in case of sickness is a matter of record.

The present accommodations and inadequate equipment of the

station provides for the detention of less than 70 persons, while it not infrequently happens that from 1200 to 1500, and even 1800 immigrants, in addition to the large crews, arrive at this port on one vessel.

The question involved at present is not one of money, but health protection better than the city now has. As previously stated, this city has been playing in great luck since 1892. No dangerous diseases have been brought to the city in the meantime. If a vessel should arrive at the present time with a paltry 200 passengers, and with dangerous diseases such as have been mentioned existing among them, the quarantine station could not possibly care for this small number, and would be utterly helpless. would be the case if a vessel should arrive with 1500 passengers under similar conditions and these people had to be detained at guarantine? What would be the result? The station would be utterly inadequate to meet the demands and afford the health protection which the people of this city and of this State and of other States are entitled to and should expect. The medical men of this State and the people should know these facts. Should I know these facts and not make them known to you, I would consider myself no longer a loyal citizen and a public health officer. I tell you there is great danger of these dangerous diseases being brought into the United States after the present European War is over.

In order to forestall the possible introduction of dangerous diseases through this port, the Government two months ago submitted to the city and the shipping interests of this city a most advantageous proportion—(1) that it would take care of Baltimore's (City) smallpox cases and all other maritime quarantinable diseases that may occur in the city at the nominal charge of \$1 per day; (2) that it would purchase the quarantine station and all property belonging to it at a liberal price; (3) that it would rebuild, greatly enlarge and equip properly to care for the largest number of immigrants that may arrive on any vessel with possible dangerous diseases among them, and would increase its facilities for the disinfection and prompt dispatch of vessels, and (4) that it will continue in the service the present employes at the station, and in order to better expedite shipping, it will establish a night medical inspection service, to be in force from sundown to midnight.

The city has favorably considered the unprecedented offer on the part of the Government, submitted solely for the purpose of acquiring prompt control of the quarantine, with the view of immediately taking steps to equip it in every way and make it a modern station, fit for the protection of the health of the city of

Baltimore and the country.

Should the people of this city and this State permit of this serious jeopardizing of the health of the community longer?

Should they permit the desire of possible gain to be supreme to

the matter of the health of the people?

The foreign shipping interests of the port are striving to delay the actual transfer of the quarantine station to Federal control until some future date for no good or sufficient reason, claiming that the commerce of this port would be injured as compared to New York should the transfer be affected before the New York

quarantine station is transferred.

The Governor of New York some months ago requested the loan by the Public Health Service of an experienced quarantine officer to take charge of the New York quarantine under his directions until the Legislature could act upon his recommendation that the station be transferred to the Federal Government. This matter is now pending before the Legislature of that State, and successful action is expected on this recommendation before its adjournment. The shipping interests of this port would be greatly benefited immediately by the transfer of the quarantine to the Government, by the immediate cessation of all quarantine fees or tolls, now amounting to \$2500 per month, also by having a medical inspection in effect from sundown to midnight, and further by having greatly-improved quarantine facilities and more prompt dispatch of vessels than heretofore. The foreign shipping interests of this port are greatly contributing, by their attitude and opposition to the transfer being effected now, toward the actual danger of the introduction of these dangerous contagious diseases.

Finally, as loyal citizens, interested in the welfare and protection of the health of our people, the foreign shipping interests owe to themselves the duty and obligation of co-operation in all beneficial measures, and should assist any proposed changes that will give better health protection to the city and the country.

[Editor's Note.—Since the date of the above address the Legislature of New York has passed a bill authorizing the transfer of the New York Quarantine Station to the control of the United States Public Health Service, and subsequently, at the instigation of the Mayor, there was introduced in Council a measure to transfer to the same service the control of the Baltimore Quarantine.]

Tonsils and Adenoids. Treatment and Cure. By Richard B. Faulkner, M.D., Columbia University. Pittsburgh, Pa.: The Blanchard Company. Paper. 1915.

This work is written from the standpoint of the physician and laryngologist in preference to that of the surgeon and laryngectomist. It is written by a physician of practical experience, and is published with the object of furnishing to careful physicians a medical line of treatment which has already secured positive curative results. It is a key to the work on "The Tonsils and the Voice." Though small, it is extremely practical, and should prove extremely useful to those needing help in gauging the proper medical treatment of diseased tonsils. Those who have already purchased "The Tonsils and the Voice" have the privilege of buying the above volume for one dollar.

INFANT WELFARE WORK: ITS NECESSITY —ITS REWARD.*

By J. H. Mason Knox, Jr., M.D.,

Associate in Clinical Pediatrics, the Johns Hopkins University.

THE activities of this week devoted to the welfare of the baby and young child, and which have been duplicated in many cities throughout the land, bring us additional proof, if such were needed, that the baby has at last "come to its own." This tiny unit in society, which from time immemorial has been the pride of its own mother and the recipient of much well-meaning advice from her mother and all the latter's friends, now takes its place as the most important potential member of society.

A Federal bureau has been organized in Washington to look after its interests, and many volunteer organizations devoted to various philanthropic and social projects are giving to the baby a large part, and in some cases all of their energies. We can start, then, with the thesis that it is of the utmost importance in this country of ours, if it is to survive and thrive in the future, to have

many well babies born and to keep them well.

Though accurate statistics are notoriously lacking, it is thought that there is an infant population under one year of age in the United States of about 2,000,000 and an infant death rate for the same age period of about 150 per thousand, making a total of 300,000 infant deaths, nearly double the number who die from tuberculosis in all ages. The mere statement of these facts brings us at once face to face with the greatest health problem with which this country has to do. When we realize that the infant death rate in this country varies from 250 per thousand to less than 70, and throughout the world from between 400 and 500 per thousand in China to less than 40 in New Zealand, it is perfectly evident that the infant mortality rate is largely dependent upon conditions which can be controlled, at least in part, and that a large measure of responsibility attaches to any community whose baby death rate is unduly large. The death rate, in other words, is a purchasable commodity. It can be reduced to a minimum if the public is willing to pay the price. We must remember also that in the large majority of cases in which a forlorn and marantic baby is brought through its critical first year by proper care that the outlook for that baby is almost as good as that of any other; that its life expectancy is practically as long as that of a child who has been robust from birth, so that in the work of saving babies there is a greater incentive and a larger reward than is given to those engaged in other lines of preventive medicine. Without attempting

^{*}Summary of address made during Child's Welfare Week, March 9, 1916, Medical and Chirurgical Faculty Building.

in any sense to be accurate, we can divide these 300,000 infant deaths into four large groups:

Those that die from—

(a) Congenital debility, usually in the first weeks of life, about 75,000.

(b) Gastro intestinal disorders, about 100,000.

(c) Pulmonary disorders, about 75,000.

(d) Various infections and other causes, about 50,000.

In Baltimore last year there were 16,355 infant deaths, the

smallest number for many years.

Unquestionably, this national death rate could be cut in half if all the babies of the country were given even moderately efficient care. That is to say, that we are losing each year in the United States about 150,000 human lives at their very beginning because those who know, including national, State and municipal governments, and the better individual citizens, are not rendering effective aid to this dependent class of our population.

Let us discuss, briefly, some of the causes, general and specific,

of this waste of baby life:

The two *general* causes everywhere recognized and always present when infant mortality rate is unduly high are: First—*Poverty*. This is a sad condition, and the solution of it should concern every thoughtful citizen. It presents difficulties which are far beyond the scope of this address. It can be said, however, that one of the strongest arguments in favor of the abolition of poverty, one of the greatest incentives in the effort to bring a fair competency within reach of every industrious family, is the crying need of the helpless babe. Repeated investigations have shown that the death rate under one year in families whose total earnings are less than \$10 a week exceeds 250 per thousand, I to 4. Whereas, when the family income exceeds \$25 a week, the infant death rate is but little over 80 per thousand, or about I to I3.

It is easy to imagine the effect of grinding poverty upon the health of a family. It means bad housing conditions, overcrowding, often immorality; it means the employment of mothers as wage-earners in factories or stores; it means the lowering of the standards of health, with increased nervousness and anxiety and an undercurrent of dread of the landlord, of grocery bill and of creditors in general, which creates an atmosphere in which it is very difficult to make a baby thrive. I am still old-fashioned enough to hope for an industrial regime throughout the country which will insure to the father or to him with the adult single members of the family a sufficient income to comfortably support

the wife and younger children.

When this state of affairs arrives the infant in the family will have a better chance. Relief has been sought in many countries and in some of our own States through maternal insurance. The variety which seems best adapted to conditions in this country is a form of sick policy insurance, in which maternity, a period of several weeks before and after the baby's birth, is treated as illness.

In this way mothers are not obliged to work near the birth of their children.

The second general cause is *ignorance*. Nothing is more pitiable in visiting among the homes blessed by baby life than the widespread ignorance among young mothers concerning those matters that are essential to the baby's welfare. This, of course, is partly remedied by skilled attendance, but ignorance, together with poverty, make a combination very disastrous to the helpless baby. It fortunately is true that nearly all mothers, even though they may be ignorant, are interested and willing to learn. They always welcome the visit of a tactful physician or trained nurse. They are now learning inadequately and with difficulty after they have become mothers many things that they should have known in their school days.

If we would adequately reduce the infant death rate of the future, we must see to it that our older girls throughout the country are not permitted to leave school until they have received considerable instruction in personal hygiene and household economics, including the care of infants. When instruction of this kind is universal, much of this now necessary effort to instruct the mother in her home, often too late to save the baby, will become unnecessary.

There are, in addition, a number of specific causes leading to the

loss of infant life, which can be briefly referred to.

First—Diseased Parents.—When we consider that a third of the total death rate in the first year occurs in the first month, and much of this among babies who are brought into the world too weak to live, because of inherited disease or weakness, it is high time to consider whether the public or the State should not take adequate means to prevent the marriage of the notoriously unfit. It is asking very little of the healthy to submit to a physical examination before marriage, when this general requirement means so much to the community. When we learn that more than one-fourth of all the premature babies born in a large obstetrical service are leutic, we have reached a time when the rights of the baby demand that we shall deal with this subject radically.

Second—Overworked Mothers.—It has been repeatedly shown that mothers who work immediately before confinement have smaller, less vigorous children, and that those who work immediately after confinement are much less able to care for their babies properly. It is the part of charity, nay rather of justice, to see

that this abuse of nature's laws does not take place.

Third—The Failure of Breast Milk.—Here the physician is largely at fault. The difficulty of adjusting its mother's milk to the young infant, which is so often encountered in the first weeks of the baby's life, is made an excuse for weaning, in many cases unnecessarily. It has been found that 60 per cent. of working women in Baltimore, reached through our clinics, can nurse their babies for several months if encouraged and instructed to do so. It must be remembered that any bottle feeding substituted for

breast milk requires a considerable degree of intelligence, an increased amount of time, money and more individual attention, all essentials which are difficult to obtain among the working people.

Fourth—Impure Cow's Milk.—Surely, if mother's milk fails, a self-respecting community should see to it that pure cow's milk is obtained for the new-born baby. It should be impossible for a mother to buy at public sale impure milk. Here she must be protected by carefully drawn and conscientiously enforced laws, because there may be nothing about the appearance of the milk to inform the purchaser that she is getting more of a poison than a food. Our milk supply in Baltimore has improved considerably in recent years, but it is still far short of a satisfactory product. It was the intention of those who were interested in having passed our present milk ordinance to give the Commissioner of Health sufficient power to enforce any milk standard he saw fit, and power to revoke any license on ten days' notice to a dealer or milk handler whose product fell below the required standard. In other words, it was the aim to concentrate in one person, the Commissioner of Health of Baltimore City, the responsibility for maintaining a satisfactory milk supply. It is most unfortunate that the legality of this ordinance has not been finally tested. In a number of instances, where the Health Commissioner has endeavored to exercise its powers as prescribed in the ordinance, he has been enjoined by the courts from proceeding further, and the wheels of justice move so slowly that no case has been finally tested in the Court of Appeals. It is very desirable that this should be done promptly, and if the ordinance is defective that another should be drawn, enlarging the powers of the Commissioner of Health. Baltimore is situated in the midst of an excellent dairy country, and could furnish its citizens better milk than any city of its size. Encouragement of breast nursing, and when this fails the use of properly modified cow's milk, up to the present time have been the most important factors in reducing infant mortality. The greatest reduction of infant death rate has occurred in the gastro-intestinal group. It is interesting to notice in Baltimore, from statistics recently compiled, that the very large increase in the number of infant deaths from gastro-intestinal disease taking place in the summer months has been greatly reduced in the last few years.

Fifth—Crowded Dwellings.—The close atmosphere which is found particularly in cold weather in so many homes, together with the overcrowding incident thereto, accounts for the great increase in deaths from pulmonary diseases among young infants in the winter. These deaths are almost as many in the winter as are those from gastro-intestinal disease in the summer. We are particularly negligent in the housing provisions offered to our colored population. This race, distinctly less resistant than the white, has double the white death rate and harbors all sorts of diseases, which are a continual menace, not only to themselves, but also to their white neighbors. Twenty-five per cent. of the colored babies born

in Baltimore are born out of wedlock. The inadequate housing conditions, which the white race thrusts upon the negro, greatly encourage this immorality. Here, again, the claim of the baby should be heard voicing its protest against the exploitation of a weaker race.

Sixth—Institutional Life.—A word must be said concerning the care of very young babies, particularly the foundling and illegitimate child in institutions. Whenever this has been tried, even under fairly good conditions, the death rate has been enormous— 60, 70, 90 per cent. The truth is that the new-born baby requires individualizing care, which is very difficult, almost impossible to secure in a large institution. The practice which is so general in Maryland at present, of permitting the mother of an illegitimate child on the payment of a sum of money to place the child in an institution, sometimes before she has ever seen it, results usually in its speedy death, and in the waiving of maternal responsibility, which is hers, and which has been shown to be the most potent influence in helping her afterward to lead a normal life. record of the Henry Watson Children's Aid Society, which has now cared for several hundred mothers and illegitimate children, with an infant death rate of about 5 per cent., is in marked contrast to the legalized slaughter which occurs in many large infant asylums.

Seventh—Good Obstetrics.—I have not referred to the baby's right to clean, skillful obstetrical care. From the lack of it hundreds of lives, of both mother and child, are unnecessarily lost. There is a crying need, which those much better equipped than I to discuss the subject have repeatedly emphasized, of thoroughgoing, radical reform in the handling of obstetrical cases among

the working classes.

These are some of the important causes which at present needlessly destroy many infant lives. In the long future improved social conditions and universal information concerning household economics and baby hygiene will result in the reduction of many of these ills, but there is much to be done in the present and in the immediate future. Today, in Baltimore, many babies are dying because their mothers do not know how or have not the means to keep them well. And it is just here that outside philanthropic organizations devoting themselves exclusively to the welfare of the baby are of the greatest help. This infant welfare movement was started 24 years ago in Paris, and has spread rapidly throughout all civilized countries. The main endeavor of them all is to bring advice and material help in the care of their babies to the mothers needing it.

Our Babies' Milk Fund Association in Baltimore was started by the Thomas Wilson Sanitarium in 1904. The first year's work was made possible by the generosity of Mr. Jacob Epstein. At first we had four stations and comparatively few babies. We have gradually grown to 16 stations, with as many nurses, and we reached in the course of last year over 7000 babies. Our nurses give their entire time to the care of infants and of children under three years of age. They have daily office hours in the stations, and respond to sick calls sent in by physicians and visit from house to house, instructing mothers how to feed and take care of their children.

In recent years, through co-operation with the large obstetrical clinics of the city, we have been able to come in contact with thousands of mothers before their babies were born. In these prenatal visits the nurse can see if adequate preparations have been made for the babies, whether the mothers have any abnormal symptoms requiring a physician's advice, and after the babies are born, as a friend, she can follow them with her advice and help throughout their infancy. Our welfare stations work in cordial co-operation with the city dispensaries and public clinics throughout the city. A nurse is assigned to the out-patient clinic of the Harriet Lane Home, and is prepared to help the mother in her own home carry out the dietary instructions given by the dispensary physician. Once or twice a week in each station consultations are held, in which mothers bring back their well babies for inspection and advice by physician and nurse.

In the summer months the Thomas Wilson Sanitarium is open to receive without charge any babies which are in need of hospital treatment in the country. These children are returned in convalescence to their homes under the direction of the nurses of the Babies' Milk Fund Association. During the last year, with the consent of the Health Commissioner of Baltimore City, the Babies' Milk Fund Association has had access to the birth registrations. By this means we are able to come in contact with many babies needing help which we either did not reach before, or per-

haps only after they had become ill.

In Locust Point, a comparatively isolated district, an obstetrical clinic, under the charge of a well-trained physician, a woman, is being maintained, and her services are being much sought for.

In order to do this work adequately we should have almost twice as many nurses and stations. Does work such as is being done by the Babies' Milk Fund Association pay? In the last six years we have reached 26,137 babies, of whom 1300 have died. If the average city death rate had pertained among these babies 3300 would have died, so that one can see as the result of this single organization that approximately 2000 lives have been saved in six years. This work, let me repeat, must be looked upon as emergent in character. It ought not to be necessary, but until the wages of our working people are adequate to support their families in decency, until knowledge of baby care is made part of the mental equipment of every girl growing into maturity, work such as I have outlined is of more importance than that of any other department of preventive medicine, if we would save a constantly increasing number of babies to take their places among and share in the work of the succeeding generations of our citizens.

The Severn, Cathedral Street.

THE EFFECT OF VARIATIONS OF THE GASTRIC SECRETION UPON THE COM-POSITION OF THE SALIVA.

By Dr. T. R. Brown and Dr. E. B. Freeman.

We both have been so interested in those peculiar affections of gums and tongue, gingivitis and glossitis, which are met with in a certain proportion of cases of achylia gastrica, and which play a considerable role in the symptomatology of pellagra and sprue, in which a gastric achylia is usually met with, that it seemed quite worth while to study the salivary secretion to determine whether there exists a relationship between the character of the gastric juice and the saliva.

The method we have employed has been the collection of all the saliva produced by the patient while chewing a piece of rubber of definite size, shape and weight for 20 minutes. This obviously is not especially physiological, and we may subsequently carry out a group of cases, using flavored gums, so that the sense of taste will play a role somewhat approximating that met with in the normal

act of chewing.

In our experiments we determined the total amount of saliva, the degree of acidity or alkalinity and the amount of diastatic ferment contained therein, our idea being to find out, if possible, in the first place, whether we could establish a normal, and in the second place, whether permanent changes would be likely to be found in cases of long lasting hyperchlohydria, hypochlohydria and achylia.

Our series comprised 10 normal cases, 6 cases of subacidity, 10 cases of achylia gastrica, 6 of which showed either stomatitis or glossitis (only one of which was due to carcinoma of the stomach)

and 15 cases of hyperchlorhydria.

In the normal cases the amount of secretion varied from 12 c.c.

to 48 c.c., the average being 22.5 c.c.

The alkalinity of the saliva varied from 0 to 10, the average being 4, while in regard to the diastatic ferment, the last positive tube was the second in one case, third in two cases, fourth in two cases, fifth in one case and sixth in two cases.

Our method of determining the diastase was taking a 10 per cent. dilution of saliva in distilled water, and of this putting 2 c.c. in the first tube, I c.c. in the second tube, .7 c.c. in third, .4 c.c. in fourth, .2 c.c. in fifth, .1 c.c. in sixth, bringing up each tube to 2 c.c. with distilled water, adding 2 c.c. of I per cent. solution of soluble starch, incubating in the water bath at body temperature for one-half hour, then testing with a weak Lugol's solution.

The first negative tube is the first of the series in which the blue

color shows that undigested starch is still present.

In the cases of subacidity the amount varied from 7 to 17 c.c.,

the average being 11.6 c.c.; the alkaline reaction from 0 to 16, the average being 6.3 c.c., while the last positive tube was No. 2 in one, No. 4 in two, No. 5 in one and No. 6 in three.

In the cases of achylia the quantity varied from 7 to 25 c.c., the average being 17.4 c.c.; the alkalinity from 2 to 10, the average being 6.8, while as to the diastase contents, the last positive tube was No. 2 in one case, No. 3 in two cases, No. 4 in two cases, No. 5 in four cases and No. 6 in one case (the last a case of carcinoma).

In the 15 cases of hyperchlorhydria the quantity varied from 7 to 55 c.c., the average being 20.4 c.c.; the alkaline reaction from o to 16, the average being 6.3, while as to the diastase, the last positive tube was No. 1 in one case, No. 2 in five cases, No. 4 in

one case. No. 5 in one case and No. 6 in seven cases.

These figures show in the first place that the chewing of hard substances produces a considerable flow of saliva, quite rich in diastatic ferment, a view rather opposed to the general physiological opinion; second, that a consideration, as regards quantity, alkalinity and diastase contents in our cases of normal as compared to those of increased, diminished or absent hydrochloric acid in gastric contents, shows that in none of these are the variations from the normal sufficiently great to make us feel that there is any definite relationship between the character of the gastric juice and that of the saliva, and third, that it is not probable that qualitative, quantitative or ferment changes in the saliva play any considerable part in the development of glossitis, gingivitis and stomatitis, so frequently met with in cases of achylia gastrica.

We shall continue our investigation along two lines; first, carrying out similar studies after giving a substance which markedly stimulates the sense of taste; second, determining the pancreatic secretions in cases of achylia gastrica with and without lesions of the mucous membrane of the mouth to find out whether variations in the pancreatic secretions may play some part in the conditions.

Cases of Normal Gastric Secretion.

Cases.	Quantity. Alkalini	ty. Diastase.		
I	12 c.c. 4	Tube No. 3 + No. 4 -		
2	48 c.c. o	Tube No. 4 + No. 5 -		
3	25 c.c. 8	Tube No. 1 + No. 2 \pm No. 3 -		
4	10 c.c. 8	Tube No. 6 +		
5	14 c.c. 0	Tube No. 5 + No. 6 —		
6	21 c.c. 6	Tube No. 5 + No. 6 -		
7	24 c.c. 2	Tube No. $3 + \text{No. } 4 \pm \text{No. } 5 - \text{No. } 4 \pm \text{No. } 5 - N$		
8	15 c.c. 2	Tube No. $5 + No. 6 +$		
9	45 c.c	Tube No. 3 + No. 4 -		
10	II c.c. 10	Tube No. 4 + No. 5 -		
Cases of Achylia Gastrica.				

I	14 c.c.	2	Tube No. $5 + No. 6 -$
2	21 c.c.	4	Tube No. $5 + No. 6 -$
3	20 c.c.		Tube No. $4 + No. 5 -$

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Tube No. 3 + No. 4 -
                                   20 C.C.
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                                        7 c.c.
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                                                                                                                        Tube No. 2 + \text{No. } 3 - \text{Vol. } 3 - \text{Vo
                                     18 c.c.
                                                                                                                         Tube No. 5 + No. 6 -
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   78
                                                                                                                        Tube No. 4 + No. 5 -
                                    20 c.c.
                                   22 c.c.
                                                                                                                        Tube No. 3 + No. 4 -
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                                                                                                                        Tube No. 6 +
                                       7 c.c.
                                                         CASES OF HYPOCHLOHYDRIA.
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Book Reviews.

Post-Mortem Examinations. By William S. Wadsworth, M.D., Coroner's Physician of Philadelphia. With 304 Original Illustrations. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. 1915. Cloth, \$6 net. Half Morocco, \$7.50 net.

Wadsworth's Post-Mortem Examinations enters into a thorough discussion of the technic and examination of the corpse. It deals with death and the changes in the dead body, and especially with the examination of the body from the first insertion of the post-mortem knife to the examination of the last organ, the skin, hair, head, brain, spinal cord, great vessels, organs of respiration, abdomen, etc. Besides it enters into a complete discussion of the medical legal aspects of post-mortems, such as the cause of death, coroner's

examinations, medical evidence, abortion, asphyxia, burns and scalds, homicide, sexual crimes, etc. The entire art of making a scientific, systematic post-mortem is beautifully announced. As in other lines of medical endeavor, there is a right and wrong way of approaching the matter in hand. So in post-mortem examinations there is a right way to go about making the examination and getting the most information, and a wrong way. The author from an experience on more than 4000 bodies tells the right way, as well as the deductions to be drawn from the observations. It is a grand book, and should prove not only satisfactory to those doing post-mortems, but also from the attractiveness with which the subject is put, lead to a reawakening to the benefits to be derived from a careful exploration of the dead.

Diseases of the Skin. By Henry H. Hazen, A.B., M.D., Professor of Dermatology in the Medical Department of Georgetown University; Professor of Dermatology in the Medical Department of Howard University; Some Time Assistant in Dermatology in the Johns Hopkins University; Member of the American Dermatological Association. 233 Illustrations, including Four Color Plates. St. Louis: C. V. Mosby Company. 1915. Cloth, \$4 net.

This book is somewhat over 500 pages, and contains a sufficiently fulsome account of the diagnosis, histo-pathology, etiology and treatment of those diseases of the skin which are met with in every-day practice. Its principal claim to recognition is the directness with which the author tackles his subject. Leaving out the wrinkles of the larger books and supplying more than the bare outline of the smaller ones, he hits a happy medium and supplies the reader with a sufficiency of the meat to allow of an intelligible understanding of the disease under discussion. It is well illustrated and extremely practical. With these perquisites it should easily worm its way into the affections of the student and general practitioner.

DIAGNOSTIC METHODS. By Herbert Thomas Brooks, A.B., M.D., Professor of Pathology, University of Tennessee, College of Medicine, Memphis, Tenn. Third Edition. Revised and Rewritten. St. Louis: C. V. Mosby Company. Cloth, \$1 net. 1916.

As heretofore, this edition will be found a thoroughly reliable guide in diagnostic methods, namely, history taking, making of routine physical examinations and the usual laboratory tests necessary for students in clinical pathology, hospital interns and practicing physicians. It is no more or less than it pretends to be—a guide, giving merely the outlines and those methods found most useful in practical work. As such it will be found timesaving and very useful. To practicing physicians it affords a quick and reliable reference work on the subjects covered. For the price it cannot be duplicated.

MARYLAND MEDICAL JOURNAL

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BALTIMORE, JULY, 1916

CONGRATULATIONS.

BALTIMORE, the medical profession, and the Johns Hopkins University in special, are to be congratulated on the establishment by the Rockefeller Foundation of its school of hygiene and public health in connection with the Johns Hopkins University. The MARYLAND MEDICAL JOURNAL, on behalf of its readers and staff, rejoices in the fruition of this magnificent gift, a gift fraught with the utmost opportunities of assuaging the ills of mankind. As important as curative medicine is, its field is narrow to that of preventive medicine. It has taken many years of education to make the profession and the laity realize this, but the movement has within recent years been gaining ever and ever greater impetus, so that today it is generally accepted by the profession that more lives are to be spared and longevity prolonged by sanitary medicine—the opulence of riches and the meagerness of poverty. the betterment of the race, the problems of child labor, the restrictions on the exorbitant use of habit-forming drugs are soluble by sanitary medicine alone. Much has already been accomplished along these lines, but what has been done is insignificant to what is to be solved by concerted effort and investigation of the men who are now and will in the future devote their lives to this field of medicine. The opportunities placed in the hands of Dr. William H. Welch, the director of this new department, and his colaborers are inexhaustible. There is nothing of greater benefit to the human race than the curing of a sick man, but it is a thousand times more important to the community to prevent sickness rather than to cure it after it has developed. What can be done to prevent depletion of the race by preventive medicine has received an excellent objectlesson on a large scale on the Mexican frontier, where for a number of years a large body of men has been collected under the

auspices of the United States Army. Here typhoid, the scourge of the army in days gone by, is practically unknown. This has been brought about by proper sanitation and personal care bestowed on the men by the medical staff of the United States Army. The control and elimination of disease from the Isthmus of Panama, San Francisco, New Orleans, Cuba, etc., only evidences what sanitary medicine can accomplish. It is the hope of the inaugurators of the new department of the Johns Hopkins University that by study, collaboration and investigation the field of sanitary medicine will be still further broadened.

There is absolutely no means whereby the influence of this department for spreading the gospel of right living can be calculated. Every graduate and every person who is brought under its influence will be the center of an ever-widening circle of dissemination of the cult of natural living. Dr. Welch, in announcing the gift, said in part: "When we consider the revolutionary discoveries of the last forty years in our knowledge of the causes and means of prevention of diseases, the great progress in the science and art of public health and the incalculable benefits to the community in the application of this knowledge, we can all realize the beneficent service rendered to this great cause by the latest gift of the Rockefeller Foundation."

Inasmuch as the profession of the sanitarian and worker in public health, although closely connected, is not identical with that of the practitioner of medicine, the school of hygiene and public health, while working in co-operation with the medical school, as well as with the school of engineering, will have an independent existence under the university co-ordinate with these schools. The central and principal feature of the school will be an institute of hygiene housed in its own building, provided with the requisite laboratories and facilities, and with its own staff of teachers giving their entire time to the work of teaching and investigation. Occupational and industrial diseases, vital statistics, sanitary engineering, the diagnosis and handling of infectious diseases, infant mortality, child hygiene, mental hygiene, bacteriology, the chemical analysis of water and foods, energy analyses of foods, nutritional analyses of foods, environmental hygiene, climatological studies, etc., will be included in its scope. When one stops to meditate on the many activities to be served by the gift, then alone does one come to a thorough realization of the good to accrue to mankind through the generosity and foresight of the Foundation.

Medical Items.

DR. NATHANIEL M. KEITH, lately assistant to Dr. Hugh H. Young, director of the Brady Urological Clinic of Johns Hopkins Hospital, is in France with a section of the Harvard unit.

He left on May 20 and is supposed now to be on duty. He is the second Hopkins man to see service with the Harvard unit. Dr. Wm. D. Jack, the other, returned to Baltimore June 3 to take up work at the Brady clinic.

Dr. Keith was an intern at the clinic.

Dr. Lee Chapman Bean, Johns Hopkins Medical School, '15, has been appointed assistant resident physician at the City Hospital, Bayview Asylum.

Dr. Ferdinand O. W. Reinhard has returned to Baltimore after five months' Red Cross service in Serbia.

At the fortieth annual commencement of the Johns Hopkins University at the Academy of Music, June 13, announcement was made by Dr. William H. Welch that the Rockefeller Foundation will establish its school of hygiene and public health in Baltimore in connection with the Johns Hopkins University. Dr. Wm. H. Welch will be the director of the school, with Dr. William H. Howell head of the physiological division. It is thought the school will open about October, 1917. It will be open to both men and women.

Announcement has been made that Mr. Kenneth Dows of New York will give a large sum of money to Johns Hopkins University to establish and maintain a department for the study and prevention of tuberculosis. Of the amount given by Mr. Dows, \$7500 is to be devoted to enlarging the laboratory facilities of the Phipps Tuberculosis Dispensary, which will be available at once. Then he has agreed to support the work of the dispensary by an annual contribution of \$17,500.

Dr. Allen K. Krouse, Johns Hopkins Medical School, '07, who has had charge of the Trudeau Laboratory at Saranac Lake, N. Y., will come to Baltimore, and with a special staff will devote himself to this work.

Dr. Harry M. Shipley of Woodstock, Md., who has been confined to Mercy Hospital for a week suffering from kidney trouble, is some-

what improved. An X-ray examination has been made, but it has not been decided whether an operation will be necessary or not.

Dr. Howard A. Kelly has severed his connection with the Johns Hopkins Hospital for a year in order to devote all of his time to further research work in radium. Dr. Thomas S. Cullen will be in charge of Dr. Kelly's classes in the gynecologic department.

Dr. Martin F. Sloan, superintendent of the Eudowood Sanitarium, Towson, has opened offices in the Professional Building, Baltimore, for the practice of medicine. He will limit his practice to diseases of the chest.

Dr. Eugene W. Heyde, Parkton, Md., has been appointed one of the health officers of Baltimore county to fill the vacancy caused by the death of Dr. Joseph S. Baldwin, Freeland, Maryland.

The police commissioners of Baltimore city have elected the following physicians as surgeons to the board: Dr. Caleb N. Athey, president, and Drs. James M. Craighill, Wm. S. Gilroy, Thomas P. McCormick and Elliott H. Hutchins.

Dr. Bowers H. Growt gave a reception to the members of the faculty and the members of the graduating class of the Medical School of the University of Maryland recently at his home.

THE Governor has reappointed Dr. Philip Briscoe, Mutual, Md., a member of the Board of State Aid and Charities.

The first alumni and graduation banquet of the general alumni association of the University of Maryland was held May 31 at the Emerson Hotel and was attended by over 500 alumni and graduates. The following officers of the general alumni were elected for the ensuing year: President, E. John W. Revell; vice-president, Dr. Albert H. Carroll; treasurer, William K. Stichel; recording secretary, Dr. F. V. Rhodes; corresponding secretary, Edward P. Crummer, and advisory council, medical, Drs. Charles E. Sadtler, Arthur M. Shipley and James M. H. Rowland.

THE quarterly meeting of the Washington County Medical Society was held Thursday afternoon, May 11, at the Washington County

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REMARKS ON THE DIAGNOSIS OF RENAL AND URETERAL CALCULI.*

H. A. Fowler, M. D. F. A. C. S. Washington, D. C.

OF THE Surgical conditions of the kidney and ureters which we are called upon to treat calculous diseases is the most common. It is unquestionably true that more stones are passed from the kidney and ureter than are removed by operation. But when for any reason a stone fails to pass, its removal by operation is demanded and the treatment, therefore, is purely surgical.

The surgical treatment of stone in the kidney at the present time differs from that of twenty, ten or even five years ago in one essential particular: Whereas all operations for the removal of stone, up to a few years ago, were of necessity exploratory operations, at the present time an exploratory operation is or should be, the exception. The exacting demands of present day renal surgery requires that a complete and accurate preoperative diagnosis must precede operative intervention in every case of suspected stone in the kidney or ureter. The positive demonstration of a stone in the kidney or ureter does not satisfy the requirements of a complete diagnosis. This is merely the first step. It is quite as important to determine the exact location of the stone in the kidney or ureter, as well as the number, size and probable composition. Furthermore, our preliminary study should determine the presence or absence of infection; to what extent, if any, the affected organ has been damaged by the calculous disease; and lastly, the condition of the opposite kidney.

The reason for this is obvious and is twofold; first, the ease and facility with which a stone is removed when its exact location in the kidney or ureter is known is in marked contrast to the difficulties often experienced in thoroughly exploring for an elusive stone which may be sought for in the lower pole or upper ureter

^{*}Read before the joint meeting of the Baltimore-Washington Medical Societies, Friday, April 7, 1916.

and is finally trapped in the upper calyx of the kidney. There can be no doubt, I think, that the so called exploratory operation for stone in the kidney very often involves a considerable damage to the organ. And the more thorough the exploration the greater the traumatism produced. The wide incision through the parenchyma necessary for a thorough search and the rough handling incident to the digital exploration of the pelvis and calices must naturally cause considerable damage to the kidney. An accurate and complete pre-operative diagnosis should limit, therefore, the necessity for exploratory operation to exceptional cases only. And by simplifying the necessary operative technic the damage to the kidney is very materially reduced.

Second. In the second place the character of the operative procedure best suited to the requirements in any particular case must depend largely upon the data furnished by our preoperative study.

One would scarcely ever consider a nephrectomy for example unless assured by previous examination of the integrity of the other kidney.

When, therefore, the presence of stone in the kidney has been demonstrated further study is necessary before the diagnosis, from the standpoint of operative treatment, can be considered complete.

The diagnosis of stone in the kidney or ureter is in general based upon the subjective symptoms presented together with the associated urinary changes, and is confirmed by an X-ray examination and instrumental examination of the patient when necessary. In a large percentage of cases the diagnosis is simple and easily made. The association of typical attacks of renal colis with hematuria and possibly pyuria suggests at once stone in the kidney. A shadow on the X-ray plate in the region of the kidney or along the course of the ureter confirms our suspicions and justifies the diagnosis of stone. That the diagnosis is not always so simple, however, is a matter of common knowledge and experience. The difficulties encountered can be appreciated best by a brief consideration of the various factors upon which the diagnosis is based. Subjective symptoms.

Pain is the cardinal symptom of stone in the kidney. We are very much in the habit of considering the pain caused by renal stone as either the typical attacks of renal colic or as a deep lumbar pain referred to the region of the affected kidney and radiating down along the course of the corresponding ureter. It is very interesting and perhaps startling to learn that an analysis of a large series of cases (251) shows that in only 46 per cent was the pain referred to the affected kidney alone and radiated down the ureter (Braasch). In another series of 153 cases of stone in the kidney and ureter at the Massachusetts General Hospital, studied by Cabot, pain in the right lower quadrant constituted the presenting symptom, the one for which the patient sought relief, in twelve cases. In thirteen the presenting symptom was abdominal pain entirely without colic; while in eleven backache was the

chief complaint. To quote Cabot "In all this group of 35 cases, the pain was never such as to suggest stone in the kidney and could readily have been mistaken for that associated with disease of the abdominal viscera. While my own personal experience does not cover so large a number of cases, yet in quite a considerable number which I have studied the findings as regards the character and irradiation of pain fully agrees with the analysis just referred to. As I have pointed out elsewhere, "it may be said that in no other organ of the body is pain so variable as to location, duration, intensity and irradiation." We may refer to the pain radiating to some other organ or region of the body, as atypical in contraindication to the typical renal colic or deep lumbar pains which we usually associate with kidney stone. Further, it seems to me convenient to divide the cases presenting atypical pain into the following groups: (1) Pain is absent during the entire course of the disease. (2) The pain is so slight as to attract little or no attention and may not be referred to the kidney area. (3) The pain is referred to some other organ or region of the body. In the latter case the kidney does not fall under suspicion and the nature and location of the trouble is apt to be overlooked. Not only that, but the symptoms are often so confusing and misleading as to lead us into the error of assuming that they arise from the lesions in other organs. This is particularly so when the pain is referred to the right lower quadrant. The unoffending appendix then becomes the target for surgical attack without any relief either to the patient or surgeon. We can all doubtless recall cases in which a similar error in diagnosis has been made. Some recent observations have led me to make the subdivision of cases mentioned. Several case histories might be given illustrating each group, but I will refer very briefly to only one of each.

C. F. B., aged 49, was referred on account of a swelling in the left side of the abdomen. An X-ray taken in Roanoke and another in Baltimore showed a large shadow opposite the third and fourth lumbar vertebrae. The diagnosis of stone in the kidney or ureter was made and this proved to be correct on closer study. At operation a calculus was found wedged down in the pelvis. The kidney was completely destroyed. Above and below the remnants of kidney tissue was found a tough thinned walled sac distended with fluid. The stone must have been present for years. But there was absolutely no history of pain referable to the kidney or any other organ at any time. It was for the relief of pressure symptoms produced by the swelling that caused the patient to seek medical aid.

D. M. L. An unusually vigorous athletic man of 50 sought relief of an inconstant drawing sensation in the muscles of the left back. This was noticeable at times in walking or deep breathing, but interfered very little with his athletic sports. There was never any acute pain. As he did not relish anything

interfering with his athletic habits, and particularly as he saw no reason for his disability, he sought the services of an orthopedic surgeon. Treatment along these lines gave no permanent relief.

An X-ray plate of the back revealed a stone shadow in the kidney area. Further examination confirmed the diagnosis of stone in the kidney. At operation a small stone about the size of a raspberry was removed with entire relief of symptoms. In this case the symptoms were very slight. And their character suggested trouble at the sacro-iliac joint.

Cases presenting atypical irradiation of pain undoubtedly are the most confusing, since the symptoms are so misleading. Cabot reports 26 abdominal operations in his series of 153 cases, operations undertaken for the relief of conditions which did not exist, but which were thought to be producing the symptoms.

A most interesting group of cases belonging to this class with referred pain are those in which the pain is referred to the opposite kidney. The kidney containing the calculus is painless while typical attacks of renal colic occur on the opposite side. Mistakes in the diagnosis are not so apt to occur in this class of patients with our present methods of thorough preoperative study and examination. However, the mistake of operating upon the wrong but painful kidney has been made while the presence of a calculus in the other painless kidney was unsuspected. In his series Braasch found the pain referred chiefly to the opposite kidney in 6 per cent. I have reported elsewhere one such case where the pain was entirely and always on the contralateral side. The essential facts in this case are as follows. The history covered a period of 10 years during which time the patient had three typical attacks of renal colic. I saw this patient in her last attack when she was suffering with severe renal colic on the right side. She had never had at any time pain on the left side. We were very much surprised to find a stone in the *left* ureter. right kidney and ureter were perfectly healthy so far as we could determine by a rather careful examination. All symptoms cleared up after the removal of the calculus. The occurrence of such relief pain serves to emphasize the importance of examining both kidneys and ureters in any cases of suspected stone even though the symptoms point to a lesion of one side only. The frequency of atypical pain associated with and produced by stone in the kidney (over 50 per cent of cases) renders this an unsafe guide in the diagnosis of this condition and is one of the most fruitful sources of error. (2) Urinary changes.

It would seem hardly necessary to call attention to the importance of a careful microscopic examination of the urine as a routine procedure. Yet neglect of this important detail has led to all sorts of errors in diagnosis and the performance of unnecessary operations. How frequently a normal appendix has been removed under the mistaken diagnosis of appendicitis when the real trouble was stone in the right kidney or ureter, it would be

difficult to say. But the number is certainly large. It is safe to assume that many cases of this kind would have been spared an unnecessary operation which brought no relief of symptoms if a careful microscopical examination of the urine had been made. In a recent case the patient had been prepared for an appendectomy but was spared at the last moment by the discovery of red blood cells in the urine. Subsequent examination revealed trouble in the right ureter. In another case the patient was less fortunate, he is minus his appendix to be sure, but he still has the same old

pain which proceeds from a right sided pyelitis.

I have always been led to believe that a stone in the kidney or ureter is practically always associated with a varying amount of blood in the urine. Very often only a few blood cells are found. It is, therefore, rather startling to learn that in 150 cases of stone in the kidney and ureter in which the urine was carefully examined on more than one occasion it was found entirely normal in 21 cases of 14 per cent. (Cabot). In 15 cases of these the stone was in the ureter; in six it was in the kidney. It would seem, therefore, that a persistently normal urine occurs more frequently with stone in the ureter than in the kidney. Braasch found the urine normal in 12 per cent of his cases of ureter stone. On the other hand Geraghty writes, "While the finding of evident or microscopic blood is no proof of the presence of a ureteral calculus its repeated absence on examination is presumptive evidence of the absence of ureteral stone."

In my own experience I recall only one case in which the urine was persistently free from red cells. The stone was located in the upper calyx as shown by pyelography. It is quite probable that I have overlooked a stone in the kidney in some cases with the urine free from microscopical blood. That such cases occur and are not uncommon we are forced to admit from the evidence submitted by such careful observers. However, I must confess some hesitancy in accepting the percentage given which are so much at variance with my own experience.

X-RAY EXAMINATION.

Unquestionably the X-ray is the most important single method we have of making a positive diagnosis of stone in the kidney or ureter. The development and refinements in X-ray technic during the past few years has been very great. And as a result it is safe to assume that as applied to the diagnosis of stone in the kidney or ureter, the percentage of error has markedly diminished. There is and probably always will be a certain number of cases, however, where the X-ray will fail to clear up the diagnosis absolutely. The sources of error are two fold, (1) the failure to show a stone when one is present, and (2) difficulties in the interpretation of shadows in the kidney region and along the course of the ureter. While the statistics from various sources differ considerably as to the percentage of error, it is generally agreed, I believe, that this is greater with stone in the ureter. In other

words the X-ray is a less certain guide to diagnosis when the stone is in the ureter than when it is in the kidney. Braasch states that roentengenography alone will establish the diagnosis of ureteral stone in not more than 60 per cent. of cases. In his recent series the X-ray examination was negative in 11 per cent. In a smaller number of cases Geraghty found 22 per cent of failures. Cabot found 6 per cent. of failures in his series of 153 cases of renal and ureteral stone, but believe this showing is above the average which is about 15 per cent. On the other hand the X-ray plate will fail to show a stone in the kidney in from 3 to 6 per cent. of cases, according to Haenisch, Leonard, Keinbach, Hartung, Holland, Nogier, and Gost, while Immelmanns statistics (quoted by Rubaschow) shows an error in only 2 per cent. of cases.

There is a certain per cent of cases therefore, variously estimated by different observers, in which the X-ray examination is persistently negative. Now, what is to be said as to the positive findings. We are all aware of the great difficulty experienced at times in correctly interpreting shadows in the kidney area and particularly in the course of the ureter. Rubaschow enumerates no less than thirty-two conditions where a shadow is produced upon the X-ray plate which may lead to confusion. While this list is rather a formidable one, analysis shows that many of the conditions are extremely rare and that really there are only a relatively few which cause confusion.

In the interpretation of all X-ray plates of the urinary tract I want to emphasize the importance of the closest co-operation between the radiographer and clinician. The entire responsibility should not be placed upon the radiographer alone. Very often it will happen that the clinician is in possession of data which will materially help in the correct interpretation of these doubtful shadows. Moreover, the closest co-operation is absolutely necessary in clearing up the diagnosis in many cases, for example, where a shadow occurs in the course of the lower ureter. Here the combination of the X-ray ureteral catheter and stereoscopic plates are the only means of accurately differentiating between intra and extra ureteral shadows.

There is another very important aid in the diagnosis of stone in the ureter and kidney pelvis. When the X-ray plate is negative in a case of suspected stone the use of the wax tipped catheter is an extremely valuable and accurate method of detecting a stone when present. This method which was first introduced and employed by Kelly in the female using his open cystoscopic tube, has been recently extensively used in the male, following and ingenious technic of Burton Harris. As pointed out above, the X-ray plate fails most often where a small stone is lodged in the ureter. And it is in these cases that the wax-tipped catheter is most useful in supplementing the X-ray examination.

The foregoing brief summary emphasizes the difficulties some-

times encountered in the diagnosis of renal and ureteral calculi, and indicates the most common sources of error. While pain may be entirely absent or misleading as to location and confusing as to character; while the urine may be entirely normal and the X-ray examination persistently negative, yet, as has been pointed out, it is forunately rare indeed for all these conditions to be present at the same time in any given case.

And in closing I will repeat by way of emphasis, that the positive demonstration of the presence of a stone in the kidney or ureter constitutes only the first step in a complete preoperative diagnosis. Present day standards require in addition the employment of routine urologic methods of examination in order to

furnish an adequate basis for sound surgical judgment.

FOLDS AND WEBS AT THE UPPER END OF THE ESOPHAGUS.

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The routine use of the esophagoscope has disclosed some lesions in the esophagus peculiar from an anatomical and clinical standpoint. Not the least interesting of these is the occasional occurrence of webs and folds, a few of which have been reported. These formations are obscure from an etiological view; it is probable that some are congenital while others, causing difficulty in swallowing in adult life, may be due to the careless use of bougies and stomach tubes, to scratching and abrasion of the membrane from small bones or pieces of shell or from the swallowing of hot liquids. The fact that they practically always occur at or near the upper end of the esophagus where the tube is narrow tends to confirm the theory of slight trauma. In my esophageal work I have seen one fold or valve at the clavicle and a web at the upper end of the esophagus.

Some years ago a physician asked me to esophagoscope his maid, 21 years old, who, for some months, had had difficulty in swallowing. There was never complete obstruction to the passage of solid food but the patient located a "catch" as she expressed it in the clavicular region of the esophagus. Liquids were swallowed without difficulty. Examination of the esophagus was made under cocaine anesthesia with the patient sitting and the head somewhat extended. I passed my modified Jackson tube and pulled the larynx forward. The esophagus opened up and A French bougie number 37 passed into the stomach without diffithere came into view at the level of the clavicle, a membrane or

fold attached to the left wall and involving more than one-half of the lumen of the esophagus. I introduced Jackson's large larvngeal speculum and passed Bunt's bougies through it into the esophagus with the result that the fold was easily torn through. A French bougie No. 37 passed into the stomach without difficulty and the patient immediately swallowed bread without trouble. She was advised to have the French bougie passed a few times to be sure that the esophagus would remain open. She

made a good recovery.

The second patient was referred to me recently by Dr. E. L. Jones of East Newmarket with the history of having had trouble in swallowing for ten years. As a child she had been well and no history of a caustic could be obtained. She was 38 years old. At times she swallowed fairly well; sometimes the smallest particle of food would pass into the trachea and cause violent paroxysms of coughing. The obstruction grew worse gradually until the patient would take two hours in a vain attempt to swallow sufficient food to satisfy hunger. Often she would be forced to leave the table to get rid of food which refused to go down. Against my advice she insisted upon taking ether for the examination. With the head straight on the table the 10 mm. laryngoscope was passed. When the esophagus opened up a web of tissue was seen passing from the anterior to the posterior wall a little to the left of the middle dividing the upper end of the esophagus into two distinct openings. At the attachments the similarity to the web of a duck's foot was striking. Small bougies passed to either side of the web but if they happened to strike it obstruction was complete. The patient was allowed to come out of the anesthetic and when swallowing was re-established, a peculiar phenomeon was observed in that the muscular contraction seemed to cause the central part of the web to spread to the esophageal walls thus practically closing the lumen and making it impossible for anything to pass into the stomach. A large bougie—French—which could do no harm to the walls of the esophagus was passed and the web ruptured. When the soreness from the operation had passed off, the patient swallowed all food with ease. Two months later a French bougie number 37 passed easily into the stomach.

The treatment of webs and folds is satisfactory in that as soon as the obstruction is broken through, the patient swallows well

and makes a prompt recovery.

A third case was that of a baby, 3 days old, at St. Joseph's Hospital who was starving through inability to swallow. The esophagoscope showed a membrane at the upper end of the esophagus. A hard rubber urethral catheter was carefully pushed through the obstruction with the result that the baby immediately began to swallow and gained rapidly in weight. As we have heard nothing from the child since it left the hospital, we infer that the membrane was permanently destroyed,

INDICANURIA—A STUDY OF 100 CONSECU-TIVE CASES.*

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A MODERATE amount has been written on the subject of indicanuria but the literature is not very extensive, and since there exists quite a marked difference of opinion concerning the im-

portance of the condition this study has undertaken

I venture to say that indican is not looked for more than onetenth as frequently as albumin. Does the presence of indican reflect the existence of abnormal toxic conditions within the body? Some say "No, because it is so commonly found." This argument has little weight when we consider that not one in a hundred individuals are physically and functionally perfect. All are laboring under some handicap which tends to reduce efficiency. I hope to show later that the presence of indican is a very real indication of trouble.

The hundred cases here analyzed were taken consecutively, this number being chosen for purposes of easy averaging. After inspecting the results in the series I find that they tally very closely with the impressions I had received from the observation

of several hundred others.

As is known, indican, or indoxyl potassium sulphate, is not poisonous, but is considered as an index as to the amount of various poisons found in the intestinal tract, for which we have no tests, while the test for indican is most simple. It is believed that formation of these toxins which have not been isolated takes place with the formation of the aromatics from bacterial decomposition of proteids, principally in the lower ileum, and that absorption takes place from the colon. Deductions as to some of the characteristics of these toxins will be considered later.

Of the one hundred cases forty-nine were in men and fifty in

women—a very even balance between the sexes.

The digestive ailments which caused them to seek relief had existed for from one week to forty years, averaging about four years. It is manifestly impossible to say how long indicanuria had been a part of the clinical picture. The ailment had been fairly constant in forty-one, intermittent in fifty-four and periodic in five.

In some instances the indicanuria itself was markedly constant and in others it varied over considerable periods of time. Again it was merely transitory or accidental.

An endeavor was made to determine whether the putrefaction was primary or secondary and whether independent or sympto-

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matic of the other digestive disturbances present. This it was not always easy to do. The symptoms and all the objective findings were studied in each patient and it was noted that apparently twenty-four were primary and sixty-nine secondary while in seven the exact status of the indicanuria could not be determined.

Certain organs concerned in the destruction of, or elimination of toxic materials from the body have been considered at fault when an excess of indican was present in the urine. The liver, the great detoxicating organ receives the portal blood before it enters the general circulation, and, theoretically, should break down all poisonous material, if not in great excess, unless functionally incapacitated. This sounds convincing but practically it has not been my experience to find indican more commonly in disease of the liver than in other digestive disorders. Again, I have frequently performed the urobilinogen test for liver functioning simultaneously with the indican test and while urobilinogen was occasionally found in small amounts it apparently was inconstant and the two tests did not parallel in intensity with any regularity.

The kidneys being the organs of elimination, we are interested in the relationship between kidney disease and autointoxication, not, uremic. We would expect, on theoretical grounds, in damaged kidneys to find the possible retention of some of the intestinal toxic products along with those of the general metabolism. Statements have been made by some observers that indicanuria is rare with acute and chronic kidney disease. My own observations have always led me to believe the opposite, namely that albumin and indican are very commonly found together, par-

ticularly in early stages of albuminuria.

In this series the urine was entirely free from albumin in but forty-five patients. Twenty-one had the faintest suspicion to the faintest possible trace of albumin; twenty-eight showed faint trace to marked trace, and six had a considerable amount. Therefore, 55 per cent. of the patients with indicanuria showed some albumin. In my laboratory I have a dark spot painted on the wall with electric light so arranged as to light a test tube of urine held against the black background in such a way as to demonstrate the least suspicion of albumin. In this way the faintest possible trace of albumin was demonstrated in twenty-one patients where in most laboratories it might have been missed.

But to show that this high percentage of albumin is not alone due to delicate technique it might be added that thirty-eight per cent. of these patients had hyalin casts and five per cent. granular casts in addition, only sixty-two per cent. being free from casts.

These instances of albumin and casts do not always mean nephritis however. I believe there are two classes of patients with co-existent albuminuria and indicanuria. In a certain and perhaps much the larger number of cases I believe the albumin to be due to renal irritation produced by the execretion of excessive amounts of irritating toxins. That the indicanuria was

first in these cases is evidenced by the fact that the albumin and hyalin casts often disappeared after the cure of the indicanuria. I also believe that if the irritation is long continued real nephritic

changes may take place.

There are at least two factors influencing the appearance of excess of indican in the urine—one, the actual increased production of toxins in the bowel, and the other, increased absorption into the blood through damaged mucosa, etc. Slow passage or stasis of the intestinal contents under either of these circumstances will markedly increase the indicanuria, although not an essential. Neither does constipation, per se, tend to the production of indicanuria. These features are illustrated by the fact that typhoid fever and ulcerative lesions of the colon, as a rule, exhibit a high degree of indicanuria, regardless of the motor functioning. Conversely, there may be a marked uncomplicated constipation without indicanuria.

Twenty-nine of these patients had regular daily movements without medication, and some of the most marked instances of intoxication occurred in these patients. Fifty were constipated,

six had loose bowels and in fifteen there was irregularity.

The acidity of the stomach contents was determined in eighty of the hundred. The average free hydrochloric acid was 40 and the total acidity 54, fairly normal figures. Acidity was normal in forty-one, high in twenty-seven and low in twelve. No definite relationship of acidity could be made out. Some cases of achylia with poor digestion showed marked indicanuria. On the other hand, some cases of gastric hyper-digestion exhibited just as marked grades.

Baar has stated that in ulcer of the stomach or duodenum, with hyperacidity, indicanuria is always present. Eighteen per cent. of this series had gastric ulcer and eight per cent. duodenal ulcer, a total of twenty-six per cent. The other side of the question, or the percentage of ulcers with indicanuria I have not been able to work out, but I should say offhand that probably between a

third and a half of the ulcer patients have indicanuria.

Colitis or pericolitis were present in twenty-three per cent., visceroptosis twelve per cent., appendiceal dyspepsia nine per cent., cholecystitis five per cent., and cancer two per cent. These conditions may be regarded as usually being the primary factors

in the syndrome of which the indicanuria was secondary.

It might be supposed that pyorrhoea would be one of the most frequent causes of intestinal putrefaction because of the enormous number of bacteria swallowed with the food. Twenty-five per cent. of the patients did have pyorrhea but this phase seemed relatively unimportant. The pyorrhea did undoubtedly contribute to cause many of the conditions to which the indicanuria was secondary but probably rarely influenced the latter directly.

A number of the series were radiographed. Ileosecal regurgitation was present in some. I think that I have seen but a single patient with incompetent ileo-cecal valve who did not have indicanuria and marked symptoms of intoxication. The function of the small and large bowel are entirely distinct and the valve was placed between them by nature for the distinct purpose of keeping them separated. I believe the perfect functioning of this valve to be of much more importance to the system than that of the pylorus. This constitutes the principal objection to the operation of ileo-sigmoidostomy but does not apply to ceco-sigmoidostomy which should be the operation of choice.

There is another etiologic factor, nerve strain, of the importance of which there can be little doubt. The action must be indirect through changing secretory and motor functioning of the digestive tract so that more undigested proteid residue is carried to the

lower ileum to be decomposed by the waiting bacteria.

When we consider the symptom complex of the intoxication manifested by indicanuria we find the nervous system to bear the brunt. Some of the principal symptoms are headache, dizziness, nervousness, muscular weakness, easy fatigue, lack of energy, neuralgic or myalgic pains, sleeplessness or the opposite, pares-

thesias or eruptions of the skin, etc.

Is indicanuria of much importance? I consider that it is extremely so, both to the patient and to the physician, from the standpoint of present comfort and future health. Of these one hundred patients there were only four per cent. who had none of the indicanuria symptoms above enumerated. There were eleven per cent. who had but one symptom. All of the balance, eighty-five per cent. had from two symptoms to the typical syndrome. This surely seems significant.

The two most common symptoms are nervousnous and the triad of muscular weakness, fatigue and lack of energy. The former was found in seventy-eight per cent and the latter in sixty-eight per cent. The principal significance of these symptoms is the fact that they clear up simultaneously with disappearance of the indicanuria. Headache and dizziness were each present in sixty per cent. and occurred occasionally in three others. There is nothing characteristic about the headache. It may vary from a full feeling to migraine or neuralgia, and is more commonly frontal or temporal.

Seventeen per cent. complained of rheumatic pains, nineteen of numbness, tingling or other paresthesia, palpitation and sleep-lessness each presented fifteen per cent. and phobias of various

sorts were found in thirteen.

These indican symptoms were not always the principal ones complained of by the patient on coming for examination, but very often were. At times the treatment of the intoxication is the main consideration, and in other instances when some other condition present is cured the indican disappears spontaneously.

The indican and symptoms may be continuous or intermittent, persistent or transitory. I have had patients with indican continuously for weeks and months. These patients often acquire a decided tolerance to the toxins. The amount of poison present

at all times, if put into the blood of another not used to it would cause alarming symptoms. This characteristic of the poison is illustrated in another way. One of my patients had a marked indicanuria for a number of years. I had him under observation for months during all of which time indican was in great excess but symptoms moderate. Finally he lost the indican. He has on two occasions had slight return of the trouble but with symptoms more marked than with his former continuous excess. He has noticed this himself. I have made similar observations in other patients.

The intermittent cases are those usually with so-called bilious attacks, most of which I believe are due to acute indicanuria. No tolerance is present and the symptoms of toxemia are so marked as to bring about an acute attack with headache, vomiting, furred tongue, etc. Then again, there are the purely transitory cases which clear up under the least bit of treatment and do not tend

to return.

Another characteristic of the toxins elaborated in the bowel seems to be their rapid action and rapid elimination from the body. This is not a fixed rule but there are many patients who are relieved of symptoms within a few minutes after a colon wash. There are many who can feel the toxemia within a short time after the indican appears in the urine. On the other hand, we do meet some cases, usually of long duration, in whom the symptoms and the indican do not tally so closely.

Considering some of the objective symptoms produced during indicanuria we find that the pulse rate is slightly quickened. It averaged eighty-one in my series. Haemoglobin tends to be lowered. It varied from forty-five per cent. to ninety-five per cent. and averaged seventy-eight and one-hundredth (78.1) per cent.

The effect on blood pressure is rather variable. There are so many factors entering into blood pressure changes that it is impossible to give figures in statistical form, especially since all ages were represented in this series. The systolic pressure varied from ninety mm. to two hundred and thirty mm. Seven per cent. were below one hundred mm., averaging ninety-four mm. with an average age of 33. Five per cent. were above one hundred and seventy mm., averaging one hundred and ninety-four mm., with average age of 61.

My general impression is that the immediate effect of the toxins is to lower blood pressure quite markedly but that long continued toxemia will induce changes resulting in increased tension.

It has also seemed to me that there are other diseases with the etiology of which intestinal putrefaction plays some part. For instance, in diabetes and pernicious anemia, a history of indicanuria symptoms existing for many months before may usually be obtained.

In my experience the degree of indicanuria has portrayed fairly accurately the amount of intestinal putrefaction. There are occasional patients whose clinical history is typical of indicanuria and yet examination of the urine fails to show an excess. Some of these are intermittent cases but some can not be ex-

plained.

We are unable to draw any conclusions as to the presence or absence of intestinal putrefaction from examination of the stool. Many specimens are putrefactive in character with considerable gas formation and odor of hydrogen sulphide but many are absolutely normal appearing and some even has the characteristics of fermentation with a sour or yeasty odor. The presence of fermentation is not incompatible with that of putrefaction.

Time forbids more than a mention of the treatment. I hope to take up experiences in treatment in a future paper. The principal considerations are first, to prevent as far as possible the formation of toxins and second, to wash them out by colon lavage. In general intestinal antiseptics and various Bulgarian bacilli preparations are of small value except in children. Calomel and other laxatives relieve some cases, but are calculated to render worse instead of better by hurrying down more undigested food for the putrefactive bacteria. I have known calomel to produce vertigo more marked than drunkenness. Proteids are limited but attempts to change the flora from putrefactive to fermentative are usually doomed to failure.

Some of the foregoing statements have been made somewhat dogmatically, but I will close by presenting a few histories to illus-

trate some of the points.

M. L., aged 40, had his first spell of dizziness and tingling of the extremities five years before. This attack had lasted three weeks. He felt fagged out about the middle of the day, had a peculiar uncertain feeling in the head and for the last 24 hours had been so dizzy that he could not raise his head from the pillow. His bowels moved regularly every day without medicine. Although a plethoric, full-blooded man, his blood pressure was but 115 mm. Physical examination was entirely negative. His urine showed faint albumen and an excess + 5 of indican (the highest possible amount according to the scale I use, in which + I represents sky blue and + 5 the other end of the scale blue black) and broad hyalin casts.

Under starvation and irrigations the indican fell to + 3 the following day and to normal the succeeding day, together with clearing up of the symptoms. Two days later on eating again indican rose to + 2, and although he had no return of dizziness, absence of energy was marked. He then improved greatly, but in a few weeks began to feel worse and indican rose steadily to + 5, resisting strenuous treatment for some weeks. It was finally controlled, and together with the absence of indican his capacity for work improved and toxic symptoms disappeared. Albumin and

casts also were no longer found.

This patient had primary autointoxication. The history emphasizes some of the points I have brought out: (1) the close association between the symptoms and amount of indican, (2)

the presence of albumin and casts produced by irritation of the kidneys and their final disappearance, (3) the reduction of blood pressure and (4) the occurrence of marked toxemia with regular

apparently normal movements.

E. A. F., aged 36, had marked indicanuria and typical signs of chronic parenchymatous nephritis for 16 years, resisting all treatment. His death was periodically foretold by leading clinicians of the country, but he is still alive, and for a year has been free from indican, although the albuminuria persists. His case is interesting in that he developed a high degree of tolerance as the toxema went on.

Mrs. R. S., aged 64, complained of nervousness and the most remarkable variety of neurasthenic symptoms all over the body. Examination was negative, except for a dilated cecum with some retention and some excess of indican with a trace of albumin. Treatment speedily relieved both indicanuri and symptoms. One year later symptoms returned in aggravated form, together with decided excess of indican. Treatment was unavailing in removing the indican or stopping symptoms until on my jokingly telling her one day that she had better discharge me and get a good doctor, she said, "Just as you say, doctor," promptly took my advice and discharged me, thereby giving me a new indican symptom—absence of sense of humor.

Mr. S. R., aged 26, complained of insomnia alone, and nothing was found but indican +2, removal of which cured the in-

somnia.

The next patient is presented to show that indicanuria is a very real condition, ofttimes not tending to be cured by nature, but promptly curable by intervention with most gratifying results to

physician and patient.

Mr. C. D., aged 29, had good health all his life. He used no tobacco or alcohol, and his bowels moved regularly. For a year he had had attacks coming first once a month, but later twice a week, of violent frontal headache, accompanied by vomiting. Indican which was present disappeared after two weeks' treatment, and he had no further attacks after starting treatment. He

has remained well for over a year.

Mr. J. D. M., aged 38, complained of many symptoms referable to his nervous system. He had frequent attacks of the feet getting cold to the knees, followed by the collection of gas, pain in the breast and dizziness, so that he could hardly stand. Examination revealed chronic appendicitis with Jackson's membrane, ileocecal regurgitation and indicanuria. This was a case where the indicanuria was purely secondary, and yet the symptoms overshadowed the primary lesions. Operation was advised and refused. After a fight lasting for some months the indican was conquered, and although he still has the appendix and adhesions, the symptoms are gone, and he only has a slight attack once or twice a year.

Only one more case will be mentioned—that of a young girl

with a profound continuous indicurnia without apparent anatomic cause. For months the condition was uninfluenced by treatment. The patient had hav fever, and last fall prophylactic injections of mixed vaccine were given, with no effect on the hay fever, but at this time indican disappeared and there has been no return.

If I have been able to arouse your interest somewhat in this condition, and have been able to convert some of the doubters who say that they cannot believe that indicanuria is of much significance anyway, I shall feel that the time spent on the analysis of these histories has been worth while.

The Rochambeau.

SOLUBLE EXTRACT OF CORPUS LUTEUM.

 $B_{V}L$, E. Beach, M.D., Baltimore, Md.

My attention was recently directed to a soluble extract of corpus luteum in I cc. ampoules for hypodermic administration. The contents of the ampoule was perfectly clear, indicating that the substance taken from the gland was in complete solution.

The hypodermic administration of corpus luteum seems to offer many advantages over the desiccated product, providing it is fully potent. From the limited experiences I have had with the soluble extract it fully meets all the requirements for treating conditions wherein corpus luteum is indicated. These cases usually present grave and alarming symptoms, and require concerted action on the part of patient and physician. By giving the treatment hypodermatically the average patient receives a favorable impression. The dose can be repeated on the second or third day, according to indications, and the attending physician can feel reasonably certain that he is going to get more definite results by giving the soluble product under the skin than by giving the gross desiccated gland substance in tablet or capsule. Early clinical observation bears out these conclusions.

I am convinced that this soluble extract corpus luteum possesses distinct therapeutic merits and is worthy of the earnest consideration of any physician who is called to treat cases where any preparation of this gland is indicated.

The following case reports may be of some assistance to those

attempting to treat cases with this extract:

Case I.—Mary O.; age 10; female; schoolgirl.

History: First child of family of eight; patient began menstruation at age of II, but was not regular, usually occurring every third week, accompanied by menorrhagia. Very nervous at time of menstruation, with marked mental symptoms. Thyroid enlarged, both lateral lobes very smooth and regular. Simple hypertrophy of the thyroid. This has existed for the past three

Treatment: Desiccated thyroid 5 gr. twice a day. Soluble

extract of corpus luteum subcutaneously every second day. amount of thyroid given, 100 tablets. Total amount of corpus luteum soluble extract, 12 injections. Has menstruated for the past four months regularly every 28 days, normal in amount and without pain. No nervousness before or during period. No enlarged thyroid gland.

Patient discharged and considered cured.

Case II.—Mrs. J. H. Y.; age 49; female; married; housewife. History: Highly nervous type, menses irregular in amount and time, very painful, lasting from two to seven days; suffering from headaches and pain in neck, back, arms and lower extremities.

Diagnosis: Menopause. Prognosis: Poor.

Treatment: 1 cc. corpus luteum soluble extract subcutaneously every third day for 30 days, inclusive. No improvement as to nervousness, menses, pains or headaches. Treatment discontinued. Treatment began on February 18; 1 cc. corpus luteum on the 22d and 26th and March I. Patient still under treatment, and shows marked improvement.

Case III.—Mrs. L.; age 47; female; married; housewife.

History: Highly nervous type. Menses very irregular and painful; lasts for several days, varying in amount. Patient suffers from pain in neck and back and radiating pains down groins. General soreness and terrific headaches.

Diagnosis: Menopause,

Prognosis: Poor.

Treatment: 1 cc. corpus luteum soluble extract subcutaneously every third day until patient had taken 16 cc. in all. Patient relieved of headache and pain in back and groin. Menses normal in amount and regular, and has been for the past four months. Patient has gained 15 pounds in weight, appetite is good, rests well and appears to enjoy good health.

Discharged as cured.

Case IV.—Mrs. L.; age 21; female; married; housewife. History: Has one child living, five years old. Had one miscarriage. No specific infections; has one sister in insane asylum.

Present Symptoms: Is very nervous; suffers a great deal from headache, neuralgia in neck and shoulders. Painful menstruation, lasts from five to eight days, very irregular, with marked mental derangement. Simple hypertrophy of thyroid gland.

Prognosis: Not very promising.

Treatment: Gave I cc. subcutaneously corpus luteum soluble

extract every third day until 8 cc. were given.

Conclusions: Thyroid gland normal, mental condition cleared up, menses normal and regular, and patient does not suffer very much pain. Corpus luteum soluble extract was given credit for results in this case, as no other treatment was administered.

Case V.—Mrs. A.; age 23; married two years; housewife. History: Chief complaint, sterility; weight 110 pounds; height

5 feet 10 inches; general health good. Menses began at age of

12, irregular in time and amount, very painful. In July, 1915, dilatation and currettement.

Treatment: Began December 1, corpus luteum soluble extract I cc. subcutaneously at three-day intervals until 10 injections were given. Menses were on time and suffered very little pain, normal in amount. Weight 117 pounds.

Treatment discontinued awaiting developments.

Case VI.—Mrs. H.; age 42; married; one child, 21 years old, by first husband; no pregnancies by second husband. Menses regular in both time and amount; has enlarged thyroid.

Diagnosis: Insufficient ovarial secretion.

Treatment: Started with 5 gr. thyroid tablets, five each day. As this seemed to induce a marked state of excitement, the dose was reduced to one tablet three times a day. In addition to this, the patient was given an injection of 1 cc. soluble extract corpus luteum at three-day intervals until 12 doses in all were given. During this treatment the nervous symptoms seemed to be worse, and both the tablets and injections were discontinued. Ten days after the last treatment symptoms of nervousness disappeared, and patient has since felt fine.

Book Reviews.

LABORATORY METHODS. By B. G. R. Williams, M.D., Member of Illinois State Medical Society, American Medical Association, etc., and E. G. C. Williams, M.D., Formerly Pathologist of Northern Michigan Hospital for the Insane, Travers City, Michigan. With an Introduction by Victor C. Vaughan, M.D., LL.D., Professor of Hygiene and Physiological Chemistry and Dean of the Department of Medicine and Surgery, University of Michigan, Ann Arbor, Mich. Third Edition. Illustrated with Forty-three Engravings. St. Louis: C. V. Mosby Company. Cloth, \$2.50 net. 1915.

General practitioners are as a rule pressed for time, and either must forego laboratory tests or leave them to the pathologist or bacteriologist. In order to minimize the employment of the laboratory man, the Williamses have made a book containing those laboratory tests which can be made by any physician. They have incorporated in the text those methods which can be carried out with the simplest sort of apparatus. Surely there is a place in medical literature for a book of the character, else it would not have been necessary to prepare the third edition. As in the former edition, so in this one those methods have been selected which have proven trustworthy and reliable. If after extensive trial the method proves unreliable, it finds no place in this volume. So of the hundreds of new methods which have in recent years been heralded to the profession, only a choice few have found their way into this book, the authors believing, and justly so,

that it is wiser to retain the older tests than less trustworthy new. But even with this very commendable spirit, things change with time, and so here new procedures have been added to the laboratory armamentorium, some of which innovations come under the scope of a volume such as the above, namely, elastic tissue staining, salting-out method for tubercle bacilli, a simple gram stain, an invariable blood stain, etc. In order to disturb the text as little as possible, these have been incorporated in an appendix. It is an extremely useful little volume, which it gives us great pleasure to recommend to our readers contemplating the purchase of a simple work on laboratory technic.

Anatomy of the Brain and Spinal Cord. With Special Reference to Mechanism and Function. For Students and Practitioners. By Harris E. Santee, A.M., M.D., Ph.D., Professor of Nervous Anatomy in Chicago College of Medicine and Surgery, Medical Department of Valparaiso University; Professor of Anatomy in Jenner Medical College, Chicago; Member of Association of American Anatomists; Formerly Professor of Anatomy in the College of Physicians and Surgeons, Chicago, Medical Department of the University of Illinois, and Professor of Anatomy in Harvey Medical College, Chicago. Fifth Edition, Revised and Enlarged. With 158 Illustrations, 46 of Which Are Printed in Colors. 1915. P. Blakiston's Son and Company. Cloth, \$4 net.

Doctor Santee handles his subject like the past master that he is. Starting with the gross anatomy of the part, he interweaves the histological and embryological factors in such wise as to really so simplify the subject that the student should have very little difficulty in gaining a thorough mastery over the anatomy of the brain. Very properly starting with the meninges of the brain and tracing their evolution, he passes on successively to the blood supply of the brain, general consideration of the brain, the cerebrum, the rhombencephalon, the spinal cord, tracing of impulses. The illustrations are excellent and add materially to the attractiveness of the volume. As a student's text-book and anatomical guide in the dissecting-room the book is without a peer and has but few equals.

INTERNATIONAL CLINICS. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A. Volume IV. Twenty-fifth Series. Philadelphia and London: J. B. Lippincott Company. Cloth, \$2 net. 1915.

The present volume marks the 100th appearance of International Clinics. Starting with the first volume, published in 1891, it has appeared regularly ever since, spreading and disseminating medical knowledge through the profession of the country. Its record has been so far honorable and the character of its articles most meritorious, and from the present able management of the

publication, the maintenance of its past high caliber is assured. We congratulate Dr. Cattell upon the completion of such a praise-worthy service, and sincerely hope the management of the periodical will be in his hands for many years more to come. With an eye always to service to the members of the profession located at a distance from the medical centers, the present issue is devoted to such topics as would seem most to meet their needs, namely, the cause and cure of pellagra, clinical laboratory methods in relation to the work of the general practitioner, the problem of the irregular heart, auto-intoxication, the value of the Roentgen examination for gall-stones, the Alvarenga prize essay, the surgery of the pancreas, etc. Surely a wide field of medical effort has been covered, and all of which are of direct concern to the general practitioner.

Marie Tarnowska. By A. Vivanti Chartres. With an Introduction by Prof. L. M. Bossi of the University of Genoa. New York: The Century Company. Cloth, \$1.50 net. 1915.

Miss Chartres has succeeded in giving us one of the most interesting biographies of a victim of circumstances written in recent years. Human nature is peculiar, and the sympathy one would naturally expect from the female sex toward an erring sister is wondrously lacking. As medicine becomes better and better developed, there is an awakening realization that many of the crimes of the weaker sex against the mandates of society are not perpetrated from a criminal instinct, but from a disordered body. These distempers manifest themselves in one way in one and in another way in the other. Marie Tarnowska is one of these unfortunates. Of a highly nervous and temperamental nature, with a taint of epilepsy in her family and sexually overdeveloped, she looked for protection and gratification from her husband, who, unfortunately, was a roue with not a particle of idea of the responsibilities of married life. Of an intensely amorous nature, what is more natural than the gratification of this craving, if not by her husband, then by a lover, and the step once taken, from one to the next as circumstances arose. Such was the impelling force in the soul of Marie Tarnowska. Nature was stronger than her will and idea of right. In the light of our present-day knowledge of psychiatry, the verdict would be sexual monomania, and the victim more pitied than censured. No novel is more alive with dramatic instances and climaxes. It seems impossible that so many unfortunate calamities could be doled out to a person. Surely there seemed to be a compelling fate guiding the destinies of Marie Tarnowska, who, as a penalty for her follies, was compelled to spend what should have been her happiest and brightest years in jail as an accomplice in the murder of her fiance. Every physician can read this book with profit.

MARYLAND MEDICAL JOURNAL

NATHAN WINSLOW, M.D., Editor.

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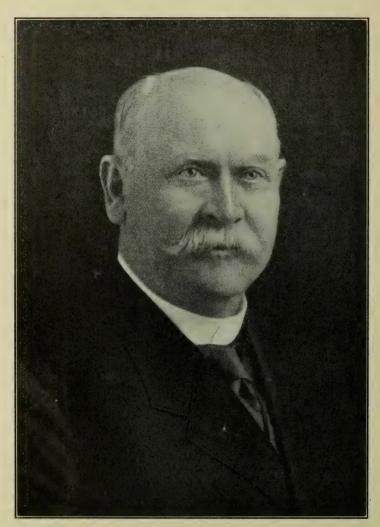
BALTIMORE, AUGUST, 1916

DEATH OF PROF. THOMAS A. ASHBY, M.D., LL.D.

On June 26, 1916, after a lingering illness, Dr. Thomas Almond Ashby, professor of diseases of women since 1897, succumbed to a complication of diseases. Within 16 months the medical school has lost six of its most distinguished and most useful members—Chew, Coale, Spruill, Streett, Chandlee and Ashby.

The death of Dr. Ashby removes from our circle another link binding us with the past, and one of the very few remaining bonds connecting the new with the old. He was born at Fort Royal, Va., on November 18, 1848, of distinguished ancestry. While he was still a lad the Civil War broke out, and though too young to take the field, he saw much of the horrow and desolation that overspread the Southland, and especially the almost constant military activities that occurred in the Valley of Virginia.

His experience during this period was given to the public in 1914 in an interesting volume entitled "The Valley Campaigns." During the same year he also published another book—"Life of Turner Ashby," being a biographical sketch of his distinguished kinsman, General Turner Ashby, C.S.A. In 1867 Dr. Ashby entered Washington College, Virginia, now Washington and Lee University, during the presidency of the idolized General Robert E. Lee. He remained here three years, taking an elective course in preparation for the study of medicine. It is evident that he made good use of his opportunities, as he acquired a varied fund of information which he continued to augment almost to the end



THOMAS A. ASHBY

of his life. While he was well versed in the classics, his especial delight was history, which he read with avidity and with a philosophic comprehension.

In October, 1871, he matriculated as a medical student in the University of Maryland, and, following the custom of those days, graduated two years later, in 1873. He was a clinical assistant or "House Student" in 1872, and also made excellent use of clinical facilities of the old Baltimore Infirmary, now known as the University Hospital.

After graduation he settled in Baltimore and began the practice of his profession, but in 1875 he accepted an appointment as resident physician to the infirmary, which he retained for more than three years. While occupying this position he established a reputation for exclusive ability and professional skill which were the foundation stones of a successful and distinguished career. In 1877 he established the Maryland Medical Journal, which is now completing its thirty-ninth volume. This journal has had a larger existence than any other medical periodical ever published in Maryland, and has been of great value to the physicians of the State.

In 1882 Dr. Ashby joined with several others in establishing "The Woman's Medical College of Baltimore," an institution for the exclusive training of women in medicine. He occupied the chair of obstetrics and clinical gynecology in this small but reputable school until 1897.

In 1889 he was called to the chair of diseases of women in the Baltimore Medical College, at that time a progressive and rapidly-growing institution. He here for the first time found a fertile field for the cultivation of his specialty of gynecology, and he soon acquired a wide reputation as a facile and skillful operator.

Upon the resignation of Prof. William T. Howard in 1897 Dr. Ashby was unanimously chosen as his successor as a professor of diseases of women in the University of Maryland, which position he continued to fill until his death. He entered upon his duties with great enthusiasm and earnestness, and with a con-

structive ability of a high order. His clinical work at the University Hospital attracted much attention, not only on account of the extraordinary celerity with which he performed difficult abdominal operations, but by reason of the unusual success that followed. Though stricken with a mortal illness, he continued to operate almost to the last.

He was the recipient of many honors. In 1890-1891 he was president of the Medical and Chirurgical Faculty of Maryland, this early recognition of his worth having been due to the fact that he had succeeded in securing 122 new members for the faculty. He had also been president of most of the local medical societies. He was elected a fellow of the American Gynecology Society in 1887, and at the time of his death was one of its oldest fellows. He was also a fellow of the American College of Surgeons, and one of its founders. In recognition of his high attainments his alma mater, Washington and Lee University, conferred the LL.D. degree on him a few years ago.

In 1912 he was elected a member of the House of Delegates of the Maryland Legislature, and he served so faithfully that he was not renominated. In addition to his vast literary labors as editor of the Maryland Medical Journal, and later of the Hospital Bulletin of the University of Maryland, he was a frequent contributor to the medical journals, and in 1903 he brought out a textbook on diseases of women. Unfortunately, almost the entire edition of this work was destroyed by fire in the great conflagration that occurred in Baltimore in February, 1904, and he never found time or inclination to reproduce the work.

His efforts in behalf of the University of Maryland were always constructive, and we trusted him to pull us out of many difficulties, and our trust was never misplaced. A noteworthy characteristic of Dr. Ashby was his unfailing optimism. If the cloud was dark, he could see the silver lining where the rest of us could only see an impending storm. Optimism is always an impelling force which incites the effort, while pessimism is a clog that stays the wheels of progress. His optimism was not a

passive virtue, but an active principle which enabled him not only to devise plans, but to put them into successful operation. No account of Dr. Ashby would be complete without reference to his courtesy, great kindliness, geniality, affability and friendliness.

He was a gentleman of the old school.

RANDOLPH WINSLOW.

THE EDITOR OF THE MARYLAND MEDICAL JOURNAL.

DR. NATHAN WINSLOW, the editor of this JOURNAL, is a member of the Medical Reserve Corps of the U. S. A., with the rank of first lieutenant. On July 1 he was assigned to active duty, and two days later was ordered to proceed to Fort Sam Houston, Texas, and report to the commanding officer. Arranging his private affairs as well as he could, Lieutenant Winslow obeyed the call of duty and reached Fort Sam Houston on the ninth of this month. He was there ordered to proceed to the Third Field Hospital, on the line of communication in Mexico, and we presume he has reached there before this time. We do not know exactly where this hospital is located, but think it is at Colonia Dublan, some distance below the border. In thus accepting active service, Lieutenant Winslow was perforce obliged to sacrifice his many interests, among which is the editorship of the MARYLAND MEDICAL JOURNAL. The JOURNAL, however, will appear as usual, and will be conducted by other members of the staff. We are conscious of our lack of experience in this work, and we ask the indulgence of our readers for our shortcomings. We hope that Dr. Winslow may have a useful and satisfactory service in the army; that he may escape rattlesnakes, tarantulas, scorpions, covotes and Mexicans, as well as the diseases incident to the tropics and to camp life, and that, having served his country in its time of need, he may return to the peaceful avocations of civil life with an enlarged experience, a broader outlook and a still greater capacity for useful service to the community.

Medical Items.

Dr. Alan Churchill Woods, son of Dr. Hiram Woods of the University of Maryland, has gone to the "front" as a member of the Medical Reserve Corps, having left Philadelphia, where he has been living, for Fort Sam Houston, Texas, Thursday night.

Dr. Woods took his degree at Johns Hopkins in 1914, and then went to the Peter Bent Brigham Hospital, Boston, where he worked

for a year and a half.

Dr. Charles Reifschneider, who was lately appointed assistant to Dr. Page Edmunds, is also assisting Dr. Frank Martin and Dr. Robert Bay at the University.

Dr. H. F. Stein is now acting superintendent of the University Hospital during the absence of Dr. W. J. Colemann, who is a captain in the Fourth Regiment, I. M. N. G., now stationed in Texas.

Dr. R. G. Willse of the gynecology outpatient department has been recently appointed a member of the gynecology installed at the Hebrew Hospital.

Dr. J. W. Pierson, 1905, now medical director of the health and accident department of the Fidelity and Deposit Co., has been appointed assistant of rontgenology at Johns Hopkins Hospital School.

Dr. P. Vinson of the University of Maryland has received an appointment in the Mayo clinic in Rochester and will go there on September 1. Dr. Vinson will work in the pathology and medicine.

The first examination of the National Board of Medical Examiners will begin on October 16, 1916, at the Army Medical Museum, Washington, D. C., and will cover a period of one week.

THE Baltimore County Medical Association was entertained at Sparrows Point by Dr. Frank Coral Eldred and Dr. George Carville McCormick. A number of prominent physicians and surgeons were in attendance.

Among those present were Drs. William J. Todd, J. S. Bowen, F. H. Ruhl, T. L. Lang, A. C. Gillis, N. H. D. Cox, G. J. France, W. C. McClanahan, W. B. MacCracken, John B.

Winslow, Randolph (Winslow, S. R. Clarke, J. P. Wade, W. P. Wyse, D. J. Fort, John Harrison, Lewis H. Grundy, Henry William Lewis, S. R. Wantz, Frank Coral Eldred, G. Carville McCormick, William A. Boyd, A. McGlasson, A. W. Blorst, C. Hampton Jones, C. W. McElfresh, E. W. Brush, W. R. Dunton, B. F. Bussey, W. E. Vest, C. W. Vest, J. H. Drach.

DR. COOPER DREWRY is a member of Troop A and has been mustered into the United States service.

Dr. Edgar B. Friedenwald and Dr. Duncan McCalman of Baltimore have been ordered to Fort Sam Houston, Texas, for duty with the Medical Reserve Corps.

Dr. Robert W. Johnson, who is first lieutenant, Medical Corps, assigned Fourth Maryland Regiment, has left for Eagle Pass.

An official bulletin, just issued by the Rocke-feller Foundation, is the first public statement of the principles and purposes of the School of Hygiene and Public Health, to be established as an integral part of Johns Hopkins University. The school will be opened in October, 1917, as it is estimated that a year will be required for the construction and equipment of the institute and the gathering together of the staff of teachers.

Prof. William H. Welch received the degree of doctor of laws at the spring convocation of the University of Chicago.

Dr. Edward L. Whitney, professor of physiologic chemistry, pharmacology and clinical pathology in the University of Maryland, has resigned to take up practice in Portland, Oregon.

Dr. George G. Snarr has been reappointed medical superintendent of the Franklin Square Hospital, Baltimore.

The regimental hospital corps of the Maryland National Guard is composed entirely of graduates of the University of Maryland, as follows: Major Robert P. Bay, S. Griffith Davis, Jr., J. Harry Ullrich, all of Baltimore, and Henry A. Mitchell, Elkton; Captain G. Milton Linthicum, Herbert Schoenrich, Frederick H. Vinup, William H. Daniels, William J. Coleman, Jacob C. Stansbury, Baltimore;

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THE TREATMENT OF EXTRA-UTERINE PREGNANCY.

By Aimé Paul Heineck, M.D.,

Professor of Surgery, Chicago College of Medicine and Surgery; Surgeon to Frances Willard, Jefferson Park and Douglass Hospitals.

EXTRA-UTERINE pregnancy is the condition which obtains in the female when a fertilized ovum is permanently arrested somewhere in its course from the ovary to the uterus, and undergoes development at this point of arrest or abnormal lodging place. The term ectopic has a broader meaning than extra-uterine, and refers not only to tubal and to ovarian pregnancies, but also to those cases in which the fertilized ovum lodges and develops in some abnormal diverticulum of the uterus.

This condition, on account of its practical problems, appeals to all members of the medical profession. It occurs far more frequently than is generally believed. It is often overlooked, often misdiagnosed. Inflammation and sepsis following a supposed miscarriage are often due to a ruptured extra-uterine pregnancy. Countless women can be saved from chronic invalidism, and many more from premature death, by recognizing this pathological entity in its early stages and by subjecting it to timely and adequate surgical intervention.

So continuously destructive is the action of the syncytial cells upon the tubal wall that tubal pregnancy is compared by many clinicians to a parasitic growth, to a malignant process, requiring in every case to be treated as such. Extra-uterine pregnancy is like a mine ready to explode without a moment's notice. It is highly important that the patient be at all times within easy reach

of competent surgical assistance.

Extra-uterine pregnancy almost invariably is primarily tubal; ovarian pregnancies occur, but they are pathological rarities. Tubal pregnancy occurs in all races and at all periods of the child-bearing age. It may be intramural, isthmic or ampullary, unilateral or bilateral. It does not seem to show any predilection for either tube. In 60 cases reported by Newell the right tube was involved in 30, the left in 24. In the remaining 6 cases, the

pelvic relations were not clearly made out. It may be the individual's first conception, or precede, be associated with or follow one or more normal uterine pregnancies. Mussey, in the St. Paul Medical Journal of 1914, reports a study of 168 cases occurring in the Mayos' clinic. Of these cases, 60 had never been previously pregnant. Normal uterine pregnancies have intervened between two extra-uterine pregnancies. Some cases have been preceded by one or more miscarriages, accidental or induced; many have occurred in primiparae and in multiparae after a prolonged period of sterility, and in a considerable number of cases one obtains a history of previous inflammation, gonorrheal or other, of the internal genitalia. It is thought that inflammatory processes act as an etiological factor by producing kinks, strictures, adhesions, obliterations of the tube and by destroying the tubal cilia.

Every conceivable variation has been observed in cases of tubal pregnancy; it has been repeated in the opposite tube, in the same tube, in a tubal stump. There has been simultaneous gestation in the right and left tubes, and also simultaneous tubal and normal uterine pregnancies. Under the designation "Tubal Twin Pregnancy" three distinct conditions are included:

I. Where one ovum is intra-uterine and the other extra-

uterine.

2. Where each tube contains an ovum:

3. Where both ova are contained in one tube.

Tubal pregnancy at times simulates, and in some of the reported cases was associated with one or more of the following pathological conditions: ovarian cyst, salpingitis, pyosalpinx and hydrosalpinx of the opposite side, appendicitis, various forms of uterine displacement and various uterine neoplasms.

What are the possible terminations of an extra-uterine preg-

nancy abandoned to the unassisted resources of nature?

I. The pregnancy may go to term and a living child be delivered through channels created by the surgeon. In connection with this termination, one must keep in mind that extra-uterine children frequently die in the first few days of life; many of them have lived only a few hours. They are frequently the subject of deformity. Potocki comments on the low cranial dimensions of his case. When two years old the child could not talk, and did not recognize anybody, not even his nurse. The operation necessitating their removal from the maternal organism may prove fatal to them. It may prove fatal to the mother, either immediately from surgical shock or from excessive hemorrhage; or remotely from toxemia, septicemia or pyemia. The removal of a living, full-term extra-uterine child is one of the most difficult operations one can be called upon to perform.

2. The pregnancy may go to term, and the child, remaining undelivered, dies, and persists indefinitely in the maternal organism. It may at any time become a menace to the life and health

of the mother.

3. The fetus may die previous to term. Small embryos when expelled into the peritoneal cavity are promptly absorbed unless the placenta retains a firm attachment to the tube or contracts new attachments. Fetuses that die at an advanced state of development cannot be absorbed.

The undelivered tubal fetus may undergo—

a. Putrefaction.

b. Mummification.

c. Maceration.

d. Septic changes (1) from communication with neighboring organs; (2) from contiguity with neighboring organs.

After the death of the fetus, the liquor amnii is absorbed. No more is secreted. The cyst shrinks, and the gestation-sac may be considered as a cyst, a fetal cyst. The fetal cyst may be merely—

1. A mechanical inconvenience to the maternal organism.

2. An obstacle to a subsequent intra-uterine pregnancy, and have to be removed to allow a simultaneous or subsequent uterine

pregnancy to go to term.

3. A source of irritation to one or more contiguous organs, causing rectal or vesical disturbances; by compressing the intestines, determining an ileus; by compressing the bladder or ureters, causing urinary retention.

4. A cause of uterine displacement.5. A cause for diagnostic errors.

6. The fetal cyst walls may and frequently do become adherent to surrounding organs and tissues, and the cyst, by means of a perforative inflammation, opens into the (a) bladder, (b) vagina, (c) intestinal canal, or (d) through the abdominal wall, by either or by several of which channels of outlet it eventually incompletely or completely eliminates its decomposing contents.

To recapitulate: The cyst may rupture—

I. Into the bowel by one or several openings.

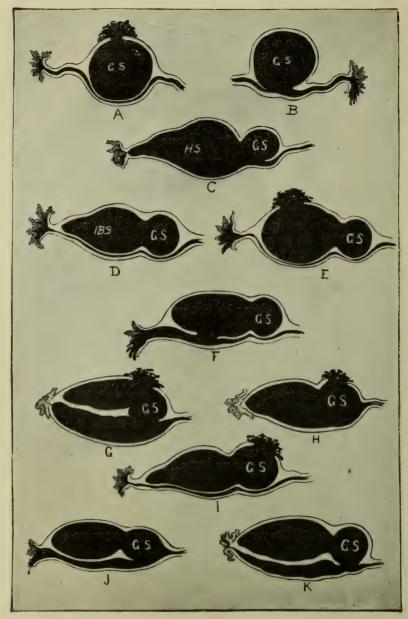
2. Into the vagina.

3. Into the urinary bladder and the fetal bones and other cyst contents by expelled per urethram. "Ten years after this extra-uterine gestation, patient began to feel that something was always obstructing the passage of the urethra and causing intense pain and discomfort. Small pieces of bone often discharged with the urine. The bladder was found to communicate with a sac containing a large number of fetal bones. The patient was placed under chloroform five times, only a few minutes each time, with an interval of six days between the sittings, and 68 bones were removed. Some still remained in the sac." (Rai, 9a.)

4. Into the rectum and the fetal bones be expelled through the anal canal. "A painful, continuous, foul-smelling, purulent, bloody discharge from the anus; fetus minus an arm was passed through the rectum. The rectum was dilated, and the occipital

and parietal bones removed." (Marsh, ob.)

5. Into the uterus.



- A. Extratubal rupture of gestation-sac. Escape of blood into peritoneal cavity. B. Intratubal rupture, with escape of blood into peritoneal cavity through ostium abdominale of Fallopian tube.
 C. Intratubal rupture, with retention. Hematosalpinx.
 D. Intramural rupture. A layer of muscular tissue intervenes between the blood extravasate and lumen of tube.
 E. Intramural rupture, with blood-sac opening into peritoneum.
 F. Intramural rupture, with blood-sac opening into lumen of tube.
 G. Combined intratubal and extratubal and intramural rupture.
 H. Combined intramural and extratubal rupture.
 J. Combined intramural and intratubal rupture, with escape of blood into peritoneal cavity.

- peritoneal cavity.

 K. Combined intramural and intratubal rupture, with retention of blood into lumen of tube.
 - GS. Gestation-sac. HS. Hematosaipinx. HBS. Intramural blood-sac.

6. Into a cyst of other nature contained in the abdominal cavity.

7. Through the abdominal wall.

8. The fetal cyst may open and be eliminated through one,

two or more channels in the same patient.

Rupture is one of the terminations of tubal pregnancy. It is appalling in its suddenness, and often overwhelming in its results. It may occur before or after the death of the fetus. Primary or secondary gestation sacs may rupture. The gestation may be arrested by this accident, or may continue uninterrupted, though changed in anatomical type. Rupture is associated with hemorrhage, circumscribed or diffuse, belonging to one of the three following types, or to a combination of two or of all these types: (a) Extra-tubal, (b) intra-tubal, (c) intra-mural. If the amniotic sac be ruptured and there be an outflow of the amniotic fluid, gestation will come to an end.

Extra-tubal rupture takes place: (a) Into the peritoneal cavity; if the ovum does not perish, the pregnancy is continued as a tubo-peritoneal or peritoneal pregnancy. Kastanajeff reported in 1914, 717 cases of ectopic gestation treated in a Petrograd hospital; nearly 600 of these ruptured before the end of the

eighth week.

(b) Between the folds of the broad ligament. If the gestation be not interrupted, it will continue as an intra-ligamentary or tubo-abdominal pregnancy. Intra-ligamentary pregnancy is far more infrequent than peritoneal pregnancy. The layers of the broad ligament provide a ready-made capsule, by means of which

the amount of bleeding is restricted.

An intra-mural rupture may lead secondarily to an intratubal or extra-tubal rupture. In intra-mural rupture a thin layer of muscle tissue and the peritoneum separate the blood-sac from the peritoneal cavity; a thin layer of muscle tissue separates the gestation sac from the intra-ligamentary space. The condition is somewhat analogous to that which obtains when a saccular aneurysm ruptures and the blood escapes interstitially. If the abdominal opening of the tube be occluded, intra-tubal rupture leads to an accumulation of blood in the cavity of the tube, viz., hematosalpinx. If the abdominal end of the tube be not occluded, the blood passes out of the tube into the peritoneal cavity, giving us a pelvic hematocele or a hemoperitoneum. The ovum, continuing to develop in the tube, may rupture secondarily either into the peritoneal cavity or between the folds of the broad ligament, and gestation therein continue. If one variety of rupture fails to relieve the tension, the gestation-sac ruptures in another direction. In tubal abortion the ovum is carried out of the tube by the intratubal hemorrhage.

The hemorrhage that attends and follows rupture usually requires immediate surgical interference. In some cases it seems as though almost every drop of blood in the patient's body has been

shed into her abdominal cavity.

Tubal ruptures and tubal abortions are associated with hemorrhage. Hemorrhage may also result from perforation of the tubal wall owing to the development of the chorionic villi. The amount of blood discharged bears no relation to the extent of the rupture. Severe and even fatal hemorrhages have occurred from very small orifices. The rupture may be punctiform in size; may be a large tear; may be almost a complete rending of the tube. Rupture into the peritoneal cavity leads either to the formation of an hematocele, or to a flooding of the peritoneal cavity; the latter will prove fatal if the hemorrhage be not operatively arrested. Maternal death may be caused by one severe intra-peritoneal hemorrhage, or by recurring hemorrhages. The signs and symptoms of acute anemia are quickly produced.

If the extra-tubal rupture be between the folds of the broad ligament, a pelvic hematoma will result. This hematoma is almost invariably one-sided, and, needless to say, is on the side of the rupture. In some cases, it dissects forward between the uterus and bladder, or backward around the uterus beneath the peritoneum and extends to the opposite side. If tension within the hematoma is excessive, rupture may take place secondarily into the peritoneal cavity, giving us the combined condition of both intra-peritoneal and extra-peritoneal hemorrhages. The same may occur in a hematosalpinx. Excessive tension leads to tubal rupture either into the peritoneal cavity, or between the folds of the broad ligament, or in both directions. The hemorrhage associated with the rupture of a tubal or an ovarian gestation-sac either proves fatal, or a pelvic hematoma or a pelvic hematocele results. These encysted blood collections—hematomata or hematoceles—are partially or completely absorbed, persist as fibrous bands or masses, or become infected and lead to pus formation. If the suppurative inflammation be circumscribed, an abscess is formed. Should the inflammation spread to, or the abscess burst into the peritoneal cavity, there results a circumscribed or diffuse suppurative peritonitis. Should the inflammation extend to the retro-peritoneal connective tissue, a cellulitis results, with all its accompanying dangers. The expulsion of the uterine decidua does not imply the death of the extra-uterine fetus.

The migration of the ovum into the abdominal cavity, through the ostium abdominale, is known as tubal abortion (Bland Sutton). Tubal abortion may also lead to hematosalpinx. Usually, however, the blood escapes freely through the ostium abdominale into the cul-de-sac of Douglas, and either becomes encysted there or escapes into the general peritoneal cavity. The three factors involved in causing abortion or rupture apart from such extraneous causes as bi-manual examination, etc., are:

- 1. The destructive action of the trophoblasts.
- 2. Bleeding.
- 3. Contraction of the muscular wall of the tube.

One should always be very careful and gentle in examining a

case of probable tubal pregnancy; the danger of rupturing one of

these tubes by rough manipulations exists.

Tubal abortion may be complete or incomplete. In the former there is usually one attack of pain and weakness. In the incomplete form we have repeated attacks of weakness. The abortion, if the amniotic sac remains intact, and if the ovum resists absorption, leads to a tubo-peritoneal and peritoneal pregnancy. If the villi or placental attachments are destroyed, the ovum, being unable to form secondary attachments to other structures, dies.

TREATMENT.

Extra-uterine pregnancy is as truly a surgical disease as appendicitis, and though, as in this disease, a clinical cure may at times be obtained by non-operative measures, it is not common for that clinical cure to be an anatomical cure. In ectopic pregnancy do not consider the viability of the child except as it endangers the life of the mother. We must destroy the fetus to save the mother. Without surgical aid extra-uterine pregnancy always terminates fatally to the child, and frequently causes the mother's death.

Nature's tedious methods of relief, and the many dangers to which the woman is obviously exposed during its occurrence, justify surgical interference. Even the absorption of large uninfected collections of blood is far more prolonged than post-operative convalescence. The ideal time for operating is before rupture takes place. Error should be made upon the side of prompt

operation rather than on that of undue waiting.

In the hands of the average operator, the only possible dangers to which the mother is exposed by the operative removal of the dead or live ectopic fetus are sepsis, hemorrhage and shock. The first can be avoided, the second can be completely controlled, and

the third can be minimized and almost always overcome.

Some operators make use of the terms "primary laparotomy" and "secondary laparotomy." In the former, the operation is performed during the life of the fetus. It is in accord with the theory and practice of modern surgery. It attacks tissues while they are healthy, in preference to awaiting nature's blind efforts to improve conditions. Secondary laparotomy is the operation performed after the death of the fetus.

The diagnosis of ectopic gestation is in itself an imperative indication for operation. Delay is inadmissible. The longer one waits, the more dangerous the condition becomes. A waiting policy is often fatal. Lives can be saved by accurate diagnosis, prompt decision and skillful operating. The profession in general has not exhibited that keenness and alertness toward extra-uterine pregnancy which has characterized its study of appendicitis in the last few years.

In tubal rupture and in tubal abortion the first indication is to stop the hemorrhage. This indication is urgent. Hypodermic medication will not accomplish it. To stop this hemorrhage, place not your faith upon the coagulability of the blood, the lessened

force of cardiac action, or such agents as heat, cold, styptics and the like. Stimulants must not be used in internal hemorrhage until the bleeding vessels have been secured, as increase of cardiac and arterial tension would be followed by recurrence of bleeding. Open the abdomen; stop the hemorrhage by ligating bleeding points with aseptic absorbable ligature material, if you have it at hand; with antiseptic non-absorbable ligature material if the former be not at hand.

Even in the absence of urgent symptoms do not delay operation. To postpone operation is to incur adhesions and hematocele sacs in their various forms. As long as the embryo or fetus lives, the placenta increases daily in size, in vascularity, and in difficulty of removal. Furthermore, every day the increasing size of the child and of the placenta adds to the danger of secondary rupture.

Having decided to operate, two pathways are open: Through the vaginal wall. 2. Through the abdominal wall. In some difficult cases you may have to use both the abdominal and the vaginal route. We recommend the vaginal route in the following conditions, viz., pelvice abscess, when the gestation-sac has been converted into a pelvic abscess, when suppuration has occurred in an intra-ligametary fetal cyst, and in all intra-ligamentary hematomata. The opening of pelvic abscesses by way of the vagina is a safe and wise surgical procedure. The results are almost always very satisfactory. 2. In those cases where the fetal parts closely press against the vaginal wall. Even here it may be necessary to make use of the abdominal route, in addition to the vaginal route. It is often impossible to remove the impregnated tube through a vaginal incision. There is always greater danger of wounding the intestines when one makes use of the vaginal route. We prefer the abdominal route because it enables the operator—I. To remedy at the same time coexisting pathological condition—hydrosalpinx, obliteration of the abdominal ostium of the unaffected tube, ovarian cysts, etc. 2. To more thoroughly and more rapidly arrest hemorrhage. 3. To make a more direct examination, and thereby to judge better the extent of damage, and formulate a more accurate diagnosis, and effect a more conservative ablation of organs. 4. To have the operative field under much better control, to more quickly come in contact with the condition, and to better and more completely remove the fetal sac and its contents. The separated ovum or liberated fetus may ascend in the abdominal cavity, and it may be very difficult to find and remove it by the vaginal route. An abdominal incision enables the operator, in case of an incorrect diagnosis, to treat those conditions that simulate ectopic gestation. In operating, sight, as well as touch, is a very useful aid.

The greatest difficulty that we encounter near term, at term or after term in operating for ectopic gestation is connected with the removal of the placenta. A slight detachment of the placenta

often results in alarming hemorrhage.

We make use of a supra-pubic or infra-umbilical incision about

one-half inch to one side of the median line, so the edges of the resulting wound are better adapted to our method of suturing the abdominal wall. Avoid cutting the epigastric vessels. Avoid cutting the urachus. Cutting into a patulous urachus is as significant as cutting into a urinary bladder. The cut must be repaired. Make timely and appropriate use of the Trendelenburg position. The patient must be placed in this position gradually, not suddenly. The return to the horizontal posture must also be gradual. The Trendelenburg position facilitates the gravitation of the intestines toward the diaphragm. It permits a better view of the pelvic tissues and organs. After the patient has been gradually placed in the Trendelenburg position, the intestines and the general peritoneal cavity are walled off from the pelvic cavity by gauze pads.

In all operations for extra-uterine gestation, the opposite tube and ovary should be carefully examined, as they may be the seat of degenerative changes. In a few instances the condition is bilateral. Extra-uterine pregnancy in some individuals has recurred.

Never make a needless sacrifice of tissues or organs. In the absence of a positive indication, such as a highly contracted pelvis, preventing the birth of a living child through the natural channels, etc., never remove the non-diseased tube and ovary. As most extra-uterine pregnancies are tubal, early operation will permit the preservation of the ovary. The preservation of the ovar

ries is of benefit to the patient.

The main difficulty in early and late operations is hemorrhage. The ideal treatment for hemorrhage incident to operations undertaken for the removal of the ectopic gestation-sac is prophylaxis. Therefore, do not provoke uncontrollable hemorrhages. Proceed after having well sized up the situation. Hemorrhage must be controlled by ligation or by compression of the bleeding points. Normal salt solution must not be given, either intravenously, subcutaneously or per rectum, before the bleeding points have been controlled or secured. Once the bleeding is under control, its use is of signal benefit. It increases the volume of the circulating fluid. Do not close up the abdomen until you are satisfied concerning the hemostasis. Hemorrhage is most profuse if the fetus be alive at time of operation.

If possible, do not leave denuded peritoneal surfaces. They are possible avenues of infection. After ablation of one or both tubes, suture the folds of the broad ligament to each other from the superior pelvic strait to the angle of the uterus. Peritonization—that is, the covering with peritoneum of all denuded surfaces—lessens adhesion formation. These adhesions may be attended with colicky and other pains; may cause intestinal obstruction. This peritonization lessens hemorrhage and creates a barrier capable of limiting the extension of inflammatory processes.

In attempting to remove the fetal sac and its contents, be careful lest these efforts inflict much damage upon continguous organs. Repair such damage, if feasible, before closing up the abdominal cavity.

In early, unruptured, tubal pregnancy there are usually no adhesions. If adhesions be present, they are to be separated, as in all other intra-abdominal surgical interventions, with great care and by the same methods. The incision, about three inches in length, is carried through the different layers of the abdominal wall into the peritoneal cavity. The first step is to locate the uterus. Using the fundus of the uterus as a guide, and proceeding to the right and to the left, examine both tubes and both ovaries. Tubal pregnancy is located with about as equal frequency on one side as on the other. Separate all adhesions, if such exist, of the gestation-sac to contiguous organs. Then remove the gestation-sac (which is usually tubal) as a whole, if possible, by total resection of the Fallopian tube involved. Suture the folds of the broad ligament together; leave no denuded peritoneal surfaces. Close up the peritoneal cavity. Post-operative treatment is that of uncomplicated laparotomy. If the pregnancy be ovarian in type, and be early and unruptured, do a typical ovariotomy. Accuracy and rapidity in operating is as essential in

these cases as in any other intra-abdonimal work.

If the gestation-sac is ruptured and hemorrhage has occurred or is occurring, after opening the abdominal cavity immediately locate and keep in view the fundus of the uterus. Determine on which side is the ruptured gestation-sac. Seize the uterus, preferably with the hand or with a double tenaculum. It is a most important landmark. Having determined on which side the rupture is (it is usually tubal), apply a clamp or clamps at the uterine end of the tube. This will stop all further hemorrhage from the ovarian artery of that side. Apply another clamp or clamps immediately below the tube, compressing the folds of the broad ligament, but not injuring the ovary. Then remove the affected tube and the gestation-sac. Ligate all bleeding points, suture the folds of the broad ligament and the tubal surface of the uterine stump. Remove as expeditiously as you can, the easily removable liquid blood and blood clots contained in the peritoneal and pelvic cavities. Remove the embryo if it can be found without prolonged search. Let there be no needless exposure, no needless traumatizing of the intestines. Mechanical, chemical and thermal irritation of the peritoneum intensify operative shock, and may be followed by the aperistaltic form of ileus. Post-operative treatment is that of acute internal hemorrhage for which a laparotomy has been performed. Use normal saline solution secundum artem.

The most dangerous operative conditions, from the maternal standpoint, are presented by those in which the fetus is alive. In these cases, the hemorrhage frequently is appalling. Some authors have suggested that the abdominal aorta be compressed. When the placenta is attached to the line of incision, the hemorrhage is profuse; it is checked by firm compression. In those cases in which the fetus is alive we have two things to accomplish, and they must be accomplished with the preservation of the mother's life. The first thing to accomplish is the removal of a living child.

The last and most important is the removal of the ovular debris—placenta, membranes, etc. One is not often called upon to operate cases in which a living child is present. For a physician knowingly to abstain from operating in a case of extra-uterine pregnancy before it reaches term is, to say the least, injudicious. The best practice is to terminate these pregnancies early, before the development of the ovum is much advanced.

Remove the fetus without disturbing the placenta. If the fetus is alive, after having opened the abdominal cavity and protected the peritoneal cavity by compresses from the outflow of amniotic fluid, ligate the umbilical cord as in a normal pregnancy and remove the fetus. Have the amniote fluid escape externally as much as possible. Upon the maternal end of the umbilical cord a clamp is placed, the umbilical cord being cut either between the

ligature and the clamp or between the two clamps.

If the fetus has reached term or near term and is dead, there is some difference of opinion as to which operation is the preferable method—the immediate operation or the delayed operation until the fetus has been dead for a month or longer. Our experience leads us to believe that the danger incident to the policy of expectancy is so great that if the fetus is dead, be that death recent or of some standing, it should be removed without delay. Exceptionally, our incision may carry us into the fetal sac. This occurs in some extra-peritoneal or broad ligament pregnancies and the peritoneal cavity is not opened. In this variety the sac and placenta are entirely beneath the peritoneum. The latter may have been pushed up, stripped, as it were, from the anterior abdominal wall for a greater or less distance. Without disturbing the placenta, after having ligated the umbilical cord near the placenta, hastily remove the fetus. Evacuate the sac contents and then, after separating the sac and the placenta from the surrounding structures to which they have become adherent, remove them. Usually our incision carries us into the peritoneal cavity. After placing the patient in the Trendelenburg position, separate the sac from the contiguous viscus or viscera to which it adheres. Control hemorrhage as you proceed. Operate rapidly. The general peritoneal cavity is protected by gauze compresses, which are numbered and counted, and then the incision is carried into the ovum. Occasionally you may be able to remove the ovum as a If the placenta is not safely removable, if the nature of the adhesions of the surrounding organs to the ovum is such that their separation would prove disastrous, content yourself with evacuating the fetal cyst and then suturing its walls to the abdominal wound. The sac must be packed daily until the placenta has been expelled and the sac cavity obliterated. If the placenta is to be left behind, it is better that it be not disturbed.

The following methods have been employed:

I. The fetus, the umbilical cord and the amniotic fluid have been removed. Everything else has been left in situ and the abdominal wall closed. This is an extremely risky experiment.

- 2. The fetus is removed, and more or less of the sac is resected. Drainage of the sac cavity is employed, and the placenta and sac are left for spontaneous expulsion. This is the most frequently employed procedure.
- 3. After the removal of the fetus, umbilical cord and amniotic fluid, the placenta is removed in part—so much of it as is easily separated—and the remainder is left to spontaneous absorption.
- 4. The placenta is left in situ after removing the fetus. Then, after the expiration of a certain time, when it is hoped that the blood supply is spontaneously cut off, the placenta is shelled out.
- 5. The placenta and entire ovum are removed immediately. Ideal measure, if feasible.
- 6. The placenta and gestation-sac are removed at once, likewise the neighboring organs, the uterus and ovaries, providing the hemorrhage cannot otherwise be arrested.
- 7. Preliminary ligature of the uterine and ovarian arteries of the side from which the placenta received its blood supply, followed by removal of the placenta.

There is no disputing the fact that the fetal sac and placenta should be removed completely if the procedure be consistent with the safety of the mother. The complete ablation of the ovum is theoretically the only perfect operation.

The method we employ in those cases in which we fear to disturb the placenta is the following: After incising the sac, removing the fetus and other intra-ovulary contents, and ligating the umbilical cord close to its implantation, we resect a portion of the sac wall and sew what is left to the abdominal wound, thus closing off the general peritoneal cavity. This leaves a large pouch, which is packed with strips of aseptic gauze. Endeavor to keep this sac cavity aseptic until all the placenta has sloughed out of the wound. The elimination of the placenta by this method takes from 20 to 50 days.

In some cases a vaginal drain has to be used, in addition to the abdominal drains. The first strips of gauze that are inserted in the fetal sac are made to serve the offices of a compress and of a tampon. They are used to check the bleeding. After the first dressings the gauze strips are used more with drainage in view. After the fetal cyst has been sewed to the abdominal wall, or immediately previous, according to the exigencies of the case, the compresses that have been used to protect the general peritoneal cavity are removed. Sewing of the sac wall to the abdominal wound shuts off all communication between the cyst and the peritoneal cavity. We use No. 3 catgut to suture the sac wall to the abdominal wall. The abdominal wound is closed as in those cases in which a Mikulicz drain is employed. Post-operative treatment, symptomatic.

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Book Reviews.

Diseases of the Digestive Tract and Their Treatment. By A. Everett Austin, A.M., M.D., Former Professor of Physiological Chemistry at Tufts College, University of Virginia, and University of Texas; Present Assistant Professor of Clinical Medicine, in Charge of Dietetics and Gastrointestinal Diseases, Tufts College; Member American Gastroenterological Association and American Society of Biological Chemists; Physician to Mt. Sinai Hospital and Berkeley Infirmary, and Assistant to Boston Dispensary; Author of Manual of Clinical Chemistry, etc. With 85 Illustrations, including 10 Color Plates. St. Louis: C. V. Mosby Company. 1916. Cloth, \$5.50 net.

This book enters into the discussion of gastrointestinal diseases with sufficient detail for the purposes of the general practitioner of medicine. It approaches the subject from the didactic or positive standpoint rather than that of case method. Whereas by this method the finer variations in disease is eliminated, it has the advantage of presenting the subject with greater positiveness, and for the class of readers which it is destined to reach, answers the purpose better. With sufficient fulsomeness the essential details of the anatomy of the stomach and intestines, the physiology of digestion and the examination of the patient are unfolded. Some 50 pages are devoted to the physical methods of examination of the patient, namely, inspection, palpation, percussion, auscultation, radiological examination, etc. Then the author describes the means for acquiring the gastric content and the various tests applied for the detection of its normality or abnormality—chemical, microscopic, etc. Parts II and III are devoted to special gastric and intestinal diseases, namely, acute and chronic gastritis, cancer of the stomach, ulcer of the stomach, enteroptosis, functional disturbances of the intestines, inflammatory diseases of the intestines, ulcerative processes of the intestines, malignant growths of the intestines, etc. Throughout the entire volume there is a tone of conservatism and a thorough mastery of the subject. Emphasis is laid upon the benefits to be derived from medicinal agents, be they physical or therapeutic, but the author does not, as in so many instances which have come to our attention, hesitate where the necessity arises to advocate the knife. We realize that he is handling the subject from the standpoint of an internist, and undoubtedly medicaments can accomplish much in these affections when employed judiciously. The internist has as much justification in the conclusions he draws as to whether he has effected a cure or not as the surgeon. In stomach and intestinal affections the results of the surgeon, if followed, are not by any means ideal in all instances. Still there are some conditions affecting the stomach and alimentary tract which can only be benefited by the scalpal. The author does not hesitate in these conditions to advise calling in the

surgeon. It is indeed a relief to find a book in which the author can so unbiasedly treat the subject from all angles. It gives us great pleasure to recommend it to our readers as presenting the subject of gastroenterology in a frank form, advising the use of medicine where the author has found it to have done good in his hands and the knife where it has proven beneficial in the hands of the surgeon. It is a well-rounded book, up to date and thoroughly dependable.

THE CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. Edited by P. G. Skillern, Jr., M.D., of Philadelphia. Published Bi-monthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Paper, \$8 net. June, 1916.

This number contains a talk by Dr. R. C. Coffey, a celebrated far Western surgeon, on "Certain Abdominal Operations." Besides this article, there are a number of interesting case reports by Dr. Murphy, with a description of the operative technique employed to overcome the afflictions, viz., "Multiple Sarcomata of the Skin," "Ulcer of Duodenum and of Jejunum," "Anterior Gastro-enterestomy by Oblong Button Method," "Cholelithiasis, Pancreatitis, Appendicitis — Cholecystostomy, Appendectomy," etc. This and all the other matter contained within this volume has a lesson for some one of our readers. It is a periodical that one cannot well be without.

CANCER OF THE STOMACH. By Frank Smithies, M.D., Gastroenterologist to Agustana Hospital, Chicago; Formerly Gastro-enterologist to the Mayo Clinic, Rochester, Minn.; Formerly Instructor in Internal Medicine and Demonstrator of Clinical Medicine in the University of Michigan, Ann Arbor; Fellow of the American Gastro-enterological Association, etc. With a chapter on "The Surgical Treatment of Gastric Cancer." By Albert J. Ochsner, M.D., LL.D., F.R. C.S., Professor of Clinical Surgery in the School of Medicine of the University of Illinois; Surgeon-in-Chief to Agustana Hospital, Chicago; Consulting Surgeon to St. Mary's Hospital, Chicago. Illustrated. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Cloth, \$5.50 net. 1916.

During the past decade much advance has been made in our knowledge concerning a better understanding of the clinical, pathological and surgical aspects of gastric cancer. This has come about through the efforts of a host of investigators, both experimental and clinical. Therefore, the conclusions of a man who has had such an enormous experience with this aspect of the cancer question as Dr. Smithies should bear the greatest consideration. The conclusions drawn in this book are based upon a clinical study of 921 operatively and pathologically demonstrated

cases of gastric carcinoma. Though cancer is on the increase, the author cannot attribute it to any particular occupation or diet, but he is of the opinion that traumatism of mechanical type does influence sometimes the development of gastric malignancy, and adduces examples as proof thereof. A striking statement is that hereditary histories predisposing to cancer were 58.9 per cent, of his series of gastric cancer, but at present the exact rôle is unknown. In regard to the rôle gastric ulcer plays in gastric cancer, he says: "It is somewhat striking that those internists, pathologists and surgeons who have only meager evidence to present most staunchly proclaim that such transition but rarely occurs. Pathologists and clinicians acquainted with and practicing modern methods admit that the question is still unsettled in many of its phases. They maintain, however, that until we are thoroughly acquainted with the facts bearing upon the cause and life history of gastric ulcer and of gastric cancer, there is but little hope of scientifically proving how many benign gastric ulcers become malignant and how many continue to pursue a benign course.

THE MEDICAL CLINICS OF CHICAGO. January, 1916. Published Bi-Monthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Company. Paper, \$8.00 per annum. Volume I, No. 4.

This number contains articles from the pens of Isaac Abt. Maurice L. Goodkind, Walter W. Hamburger, Charles L. Mix, George H. Weaver, Frederick Tice, etc.

Tice states in an article on Epidemic Cerebrospinal Meningitis that the diagnosis of a clinical meningitis is not particularly difficult, but it is far more difficult to diagnose the specific type of meningitis. In this connection he advises lumbar puncture as of the greatest assistance. He then thoroughly discusses lumbar puncture, both from a diagnostic as well as therapeutic standpoint. He is of the opinion of Albrecht and Ghon that the diplococcus of Weichselbaum gains admittance to the system through the upper respiratory tract; this despite the fact that in many instances it cannot be demonstrated, he accounting for this according to the time the examination is made. Usually, after the lapse of two or three weeks, the organism is no longer present; and this may be the case even where the manifestations of meningitis persist. In experimental work it has only been possible to make an infection by direct introduction into the meninges.

The active treatment, according to the author, consists in the administration of Flexner's serum, which is administered intraspinously, as it has no effect when given subcutaneously or intravenously. In a case of moderate severity 30 cc. every twentyfour hours is sufficient; in the severer types two injections should

be administered in the first twenty-four hours.

This is simply a type of the articles appearing in this bimonthly. If Medicine is to advance, more work of this character must be done. At any rate, such articles should arouse the internist as to the possibilities of advancement of his side of Medicine.

Collected Papers of the Mayo Clinic. Rochester, Minn. Edited by Mrs. M. H. Mellish. Vol. VII. 1915. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Cloth, \$6. Half Morocco, \$7.50 net. 1916.

Volume VII of the "Collected Papers of the Mayo Clinic" contains in a convenient form and a form easily accessible a résumé of the work done at this wonderful institution during the year 1915. The articles are on a variety of subjects and by a number of the members of the staff of that institution. It is a book which will be found useful by general practitioner and surgeon alike, and should be an incentive to better work to every member of the medical profession, as it is a concrete demonstration of what can be accomplished by a doctor or set of doctors if they work together, even if they are located in a little out-of-the-way hamlet.

A Few Important Ophthalmic Reminders for the Busy Practitioner. New York: The Fellows Company.

This brochure admirably recalls to the attention of the practitioner certain important ocular conditions which should be promptly recognized, viz: Never put atropine or any other mydriatic in the eye without first estimating the intraocular tension, for, should glaucoma exist, atropine will make matters worse, and even precipitate an impending attack; never prescribe a lotion containing salts of lead from any affection of the cornea, as an oxid may be deposited and form a dense, permanent opacity, etc. These extracts are only samples of the many useful hints abounding throughout the pamphlet. It should prove invaluable to the general practitioner in recalling to his mind points of diagnosis and treatment which has escaped his memory.

A Manual of Gynecology and Pelvic Surgery for Students and Practitioners. By Roland E. Skeel, A.M., M.S., M.D., Associate Clinical Professor of Gynecology, Medical School of Western Reserve University; Visiting Surgeon and Gynecologist to St. Luke's Hospital, Cleveland; Fellow of American Association of Obstetrics and Gynecologists; Fellow American College of Surgeons. With 289 illustrations. Philadelphia: P. Blakiston's Son & Co. Cloth, \$3 net. 1916.

This book is no more or less than it pretends to be—a manual, and as such it is neither too fulsome nor too scant. Withal, it is a concise, practical work, and is particularly strong in its sections on treatment and diagnosis. If used as a reference book in conjunction with lectures, it will be found very useful in clearing up mooted questions. It also has a field of usefulness in preparing

for State Board medical examinations and as a hasty reference book for the busy practitioner who occasionally delves in gynecological practices. In so far as it goes, it is modern, up to date and thoroughly reliable. The illustrations are well selected, and should tend materially to simplify the text. It gives us great pleasure to recommend it to our readers.

Pellagra: An American Problem. By George M. Niles, M.D., Gastro-Enterologist to the Georgia Baptist Hospital, Wesley Memorial Hospital and Atlanta Hospital; Consulting Gastro-Enterologist to the Atlanta Antituberculosis Association and to the Moore Memorial Clinic, Atlanta, Ga. Second Edition. Illustrated. Philadelphia and London: W. E. Saunders Company. Baltimore: The Medical Standard Book Co. 1916. Cloth, \$3 net.

After some remarks more or less generalized, historic and otherwise, the author launches into a discussion of Pellagra as it affects the United States. Since Pellagra has become so widespread and of such frequent occurrence here in these United states, and since it is on the increase and is a vital problem in practically every section, • none being absolutely excepted from its visitations, it is high time that physicians familiarize themselves with its chief characteristics, so that it be recognized early. As early as 1863 two cases were recognized in New York, from which time until 1883 nothing is heard of it, when a case was reported by Dr. S. Sherwell of Brooklyn, N. Y., in a Genoese sailor. But it was not until 1902 that the profession began to thoroughly realize that Pellagra had unrecognized gained a firm foothold in the Southern States, and began to wake up to the gravity of the situation, and through their efforts the ear of the American people reached and Pellagra as an American problem driven home to the most skeptical. Dr. Niles believes a present estimate of 40,000 pellagrins in the United States is not far from correct, thus forcibly reminding us of the enormity of the problem. So it has come to pass that "a condition and not a theory confronts us," and it is this condition that Dr. Niles, after a wide practical experience and much thought and observation, seeks to drive home. He leans to the belief that pellagra is not transmitted by a winged, blood-sucking insect, but an unbalanced diet containing an excessive proportion of corn or corn products, with other cereals and vegetables. Some sixty pages are devoted to the symptomatology and course of pellagra and the remainder of the book to its pathology, diagnosis, prognosis, treatment, prophylaxis and experiments on animals, with the deductions derived therefrom. From time to time cases have been reported here in Maryland, and as this book gives such a clear picture and accurate statement of the problem by one who has been in the midst of the enemy. Maryland physicians should and will find the volume of direct use in preparing themselves against the loathsome enemy.

Summary of Results of Examination Held by the Board of Medical Examiners of Maryland, June 20, 21, 22 and 23, 1916.

	or Maryland, June 20), 2	1,	22 8	ına	23,	19	16.				
No.		./ ii	Surgery	Pathology	9	Practice.	Chemistry	71.	Therapeuties	Physiology	Total.	1
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2	Medical College of Virginia, '14	70		75			80	00	• •	14.4		
3	Johns Hopkins.	79 70	80	84	82		80	80	(12)		- 1-	09
4	Johns Hopkins, '16	78 90				75	89 99	S3 77	93	S1 S5	74.5	83
5	Johns Hopkins, '14	75	82	 85	79	80	75	60	76	75	687	76
6	University of Maryland, '12	62	78	54	67	81	59	76	65	50	583	65
7	University of Maryland, '16	90	84	93	89	84	89	82	98	81	790	88
8	Johns Hopkins, '14	68	80	72	73	76	SG	70	62	7.2	659	73
9	University of Maryland	82					98	92		84		
10	University of Maryland, '15	75	84	82	77	78	85	78	91	76	726	81
11.	University of Maryland, '14	63				63	46					
12	Johns Hopkins, '16	80	94	91	92	85	95	92	98	93	820	91
13	Maryland Medical College, '04	36	68	62	45	70	90	82	94	50	597	66
14	Johns Hopkins	79					90	88		(36)		
15	Howard University, '07	57	54	71	68	66	78	42	40	75	551	61
16	Johns Hopkins, '15	79	75	80	85	82	94	90	81	76	742	82
17	Temple University, '15	53	71	63	67	78	68	76	61	75	612	68
18	Johns Hopkins, '16	77	80	81	91	91	89	80	87	75	751	83
19	Johns Hopkins, '16	82	85	98	6 4	79	95	70	90	91	767	85
20	University of Maryland	80					100	86		94		
21	Johns Hopkins, '15	96	90)	83	94	95	98	100	(1.)	97	848	94
22	College Physicians and Surgeons Balto., '14		77	75	0.1	0.5			0.1			
23	Johns Hopkins, '16	86	85	90	91	85	76	86	94	94	787	87
24	Johns Hopkins, '16	89 85	86 90	95 94	84 82	84 84	98	87 80	95 94	86 85	804 784	89 87
25 26	Johns Hopkins, '16	63	61	70	72	67	88	64	84	48	617	69
27	Johns Hopkins, '16	78	80	80	79	76	85	91	93	76	738	82
28	Johns Hopkins, '16	87	93	84	89	75	80	87	S3	89	767	85
29	University of Maryland, '16	80	97	84	92	80	93	95	92	76	789	88
30	University of Maryland, '16	83	90	71	76	77	84	90	89	75	735	82
31	Johns Hopkins, '16	85	85	90	90	50	90	7.5	90	80	765	85
32	College Physicians and Surgeons, Balto., '15	62		65		75	75			70		
33	Maryland Medical College, '10					Faile	d to	appea	1'.			
34	University of Maryland, '16	96	98	93	95	91	100	93	88	91	845	94
35	Johns Hopkins, '16	84	91	71	91	7.5	95	94	98	80	779	87
36	University of Maryland, '16	73	82	60	61	82	76	80	79	56	649	72
37	University of Maryland, '16	54	94	83	63	79	75	66	SI	80	675	75
38	Medical College of Virginia, '15	50		60	63		80					
39	Johns Hopkins	98	0.1	0.4			98	90		93		0.4
40	Johns Hopkins, '16	92	81	84	86	83	90	85 75	79 93	78 85	755 768	84
41	University of Maryland, '16	81 60	90 89	75 85	85 88	94 79	80	76	86	80	723	85 80
43	University of Maryland, '15.	. 79				(··	75	75	7.5	76	1-0	(11)
44	University of Maryland	73					7.5	78		6604		
45	University of Maryland, '16	84	87	75	75	77	80	80	86	79	723	80
46	University of Maryland	61					65	51		62		
47	University of Maryland	48					7.0	77		78		
48	Johns Hopkins, '16	82	87	90	83	83	75	76	77	77	730	- 81
49	Johns Hopkins, '16	97	90	93	94	83	86	94	89	84	810	90
50	Johns Hopkins, '15	88	81	90	94	79	88	91	\$80	87	778	86
51	Johns Hopkins, '16	65	75	89	78	77	75	75	83	7.2	689	77
52	Baltimore Medical, '13	55	72	75	81	75	78	80	66	57	639	71
53	University of Maryland, '15	79	97	86	94	S9	98	89	79	89	800	89
54	Baltimore Medical, '09	70	77	59	72	72	75	71	74	78	648	72
55 E6	University of Maryland, 16	82	87 76	70 89	83 77	80	82	88	78 01	82 90	732 776	81
56 57	Johns Hopkins, '16	92 82	71	87	82	84 80	95 90	83	91 85	89 89	776 743	86 83
58	Johns Hopkins, '16	75	85	88	89	86	90	88	85	81	767	85
59	Maryland Medical College, '12	46		35		79					101	00
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Summary of Results of Examination Held by the Board of Medical Examiners of Maryland, June 20, 21, 22 and 23, 1916.—(Continued.)

	June 20, 21, 22 and	a 23,	, 19	16	-(Co	ntinu	ea.)					
No.		>	S.	1444 1.5°	0	3	2	2	=	H	8	>
· ·		喜	Surgery	Pathology	Obstetrics	Pract	Chemistry	Materia Medica	Therapeuties	Physiology	rotal.	Average
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60	University of Maryland, '16	62	76	65	75	82	69	75	58	60	613	68
61	University of Maryland, '16		• •	• •	• • •	• •	60	• •			• • •	• •
62	University of Maryland, '16	85	89	85	82	88	85	88	85	81	768	85
63	George Washington University, 16	81	81	75	90	80	90	86	88	88	759	84
64	Johns Hopkins, '16	95	82	82	96	83	.100	91	80	87	796	88
65	Johns Hopkins, '16	61	78	72	84	75	85	70	67	83	675	75
66	Maryland University, '16	45	82	68	75	70	65	54.	71	63	593	66
67	Medical College of Virginia, '15	89	90	69	66	81	75	80	96	83	729	81
68	University of Maryland, '16	79	95	89	93	. 82	75	82	84	84	763	85
69	Johns Hopkins, '16	76	82	80	80	80	80	80	71	93	722	80
70	University of Maryland, '16	68	92	75	86	83	80	87	91	90	752	84
71	University of Maryland, '16.	69	87	73	68	68	50	67	66	54	602	67
72		69	93	82	86	85	75	83	69	89	731	81
	University of Maryland, '16											
73	University of Maryland, '16	75	80	75	81	72	75	75	70	81	684	76
74	Johns Hopkins, '16	77	77	93	75	75	75	80	80	77	709	79
75	Maryland Medical College, '13						60			48	• • •	
76	Johns Hopkins	82					80	77		85		
77	Bennett Medical, '14	35		25		61	60					
78	University of Maryland	82					80	75		85		
79	University of Maryland, '16	75	87	63	76	89	78	77	79	80	704	78
80	University of Maryland, '16					Failed	1 to	appea	ır.			
81	University of Maryland, '15	67	81	72	92	62	78	50	78	83	663	74
82	Baltimore Medical College	62					30	70		54		
83	University of Maryland, '16	80	93	80	77	86	88	81	68	80	733	81
84	University of Maryland, 16			0,0		Failed		appea		00	,,,,	01
85	University of Maryland, '16	75	79	78	63	89	80	80	80	87	711	79
86	Johns Harling	93					95	80		91		
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87	Johns Hopkins, '16	71	72	78	78	87	95	75	95	78	729	81
88	Johns Hopkins, '16	86	95	80	82	78	89	88	80	87	765	85
89	Johns Hopkins, '16	83	93	80	87	87	97	83	86	95	791	88
90	Johns Hopkins, '16	77	90	83	88	80	90	92	92	85	777	86
91	University of Maryland, '16	91	, 91	84	85	87	59	83	61	87	728	81
92	Johns Hopkins, '16					Failed	d to	appea	r.			
93	University of Maryland, '16	60	87	75	63	71	45	75	86	60	622	69
94	University of Maryland, '16	73	93	75	93	88	85	76	59	76	718	80 -
95	University of Maryland, '16	83	86	83	93	82	78			87		
96	Maryland Medical College, '12						30	70		60		
97	University of Maryland, '16	61	83	69	64	75	80	68	73	80	653	72
98	University of Maryland, '16	84	85	66	95	88	85	92	81	83	759	84
99	University of Maryland, '16	52	91	72	62	83	30	70	85	66	611	68
100	University of Maryland, '16	73	90	88	90	79	80	81	88	78	747	83
101	University of Maryland, '16	84	89	75	89	78	100	84	94	75	768	85
102	University of Maryland, '16	53	89	80	81	80	90	69	84	75	701	78
103	University of Maryland, '16	63	90	80	85	80	80	82	85	83	728	81
	University of Maryland, '16							appea			200	
105	University of Maryland, '16	61	86	78	80	83	75	75	75	75	688	76
106	University of Maryland, '16	77	77	80	74	81	75	75	76	88	703	78
107	College Physicians and Surgeons, Balto., '14.					Failed	d to	appea	r.			
108	University of Maryland, '16	62	80	75	78	77	65	76	60	88	661	73
109	College Physicians and Surgeons, Balto., "14.			75			80					
110	University of Maryland	56					80	60		87		
111	Harvard Medical, '15		75				85	84	89			
112	Johns Hopkins, '15	88	86	94	86	75	90	81	79	93	772	86
	7 11 1			1				4.3			0	43 .

In the above summary an average of 75 is required of those participating in the examination for the first time in order to secure a license. Those who have failed are eligible to re-examination at the expiration of six months. They are then obliged to receive a rating of 75 in each branch in which they are re-examined before license can be issued. Under the Maryland laws, students who, at the end of their second year, have successfully passed their college examination in Anatomy. Chemistry, Materia Medica and Physiology, are entitled to examination by the Board of Medical Examiners in these branches. The ratings made by these students in the examination known as the "second-year examination" are carried forward and made part of the final examination, when an average of 75 must be obtained to secure a license. We trust that this statement will make clear the apparently incomplete examination of certain participants.

REPORT OF BOARD OF MEDICAL EXAMINERS OF MARYLAND.

QUESTIONS AT THE JUNE (1916) EXAMINATIONS.

CHEMISTRY.

- 1. Give symbol, valence and one important compound of each of ten (10) elements.
- 2. Describe nitrogen. In what form is it chiefly eliminated from the body? Name several compounds containing nitrogen and give formulæ.
- 3. (a) Describe lead. Which of its compounds is used in medicine? (b) From what sources may chronic lead poisoning come?
- 4. Give two (2) antidotes for phosphorous and explain their action.
- 5. Give a chemical antidote for each of the following and explain mode of action: Phenol, nitric acid, oxalic acid, mercuric chloride.
- 6. (a) Wood alcohol and grain alcohol; give formulæ and state the class of chemical substances to which they belong. (b) How would you treat a case of poisoning by the former, supposing the case were seen shortly after ingestion of the substance?
- 7. Why is a salt of mercury incompatible with K1?
- 8. What is synthesis? Name three synthetic organic substances used in medicine.
- 9. Describe method of determining the sugar content of the blood.
- 10. What substance is used as an antidote for most alkaloids, and how does it act?

ANATOMY.

- Describe articulations of superior maxillary bone.
- 2. Describe the elbow joint, name the ligaments and give their attachments.
- 3. Give location and size of stomach when empty.
- 4. Superficial and deep origin and arrangement of fibers in commissure of optic nerves.
- 5. Where would you locate lesion in a case of asphasia?
 - 6. Describe valves of heart.
- 7. Give origin, insertion, action and nerve supply of following muscles: (a) Obliquus internus. (b) Obturator externus. (c) Omohyoideus. (d) Serratus magnus.
- 8. Through what vessels would circulation be established after ligation of brachial artery in lower third?
- 9. Where are semi-circular canals located, and by what bony openings do they cummunicate with the middle ear and with the cranial cavity?
 - 10. What is the mesentery?

THERAPEUTICS.

- I. Flexile collodion and cantharidal collodion; their therapeutic uses.
- 2. Give the therapy of boric acid and methods of use.
- 3. Acid salicylicum; its therapy and usual combination for internal administration.
- 4. Sodium bicarbonas, properties and uses, incompatibles.
- 5. Spiritus aetheris nitrosi; its properties, uses and adult dose.
- 6. Aethylis chloridum; properties and uses, and objections to its use.
- 7. Alumen; properties and uses; values of the exsiccated.
- 8. Arseni trioxid, therapy, liquid preparations and state which can be administered with acids.
- 9. Hexamethylenamin; properties and uses; mode of action and danger from large doses.
- 10. Write a prescription in Latin, without abbreviation, containing four ingredients (with "Fowler's solution" as one), stating condition for which used.

MATERIA MEDICA.

- I. Mercury. The official preparations, doses and incompatibles.
- 2. Lead. The official preparation and incompatibles.
- 3. Write a prescription using official terms, containing at least three ingredients, for diarrhea in an adult. Also one for a child two years old containing three ingredients.
- 4. Give the average hypodermic dose for an adult of apomorphine, morphia sulphate, nitroglycerin, atropine sulphate and pituitary extract
- 5. Ergot. The official preparations and doses.
- 6. Potassium. The official preparations and doses.
- 7. Name three drugs which are motor nerve depressants; three which are sensory nerve depressants, and give adult dose of each.
- 8. (a) Define antisentics and name three that are used internally, with adult dose. (b) Name three that are used externally and give strength of same, using official terms.
- 9. Write a prescription as a diuretic containing three ingredients, using official terms.
- 10. Define antitoxins and vaccines. Name those in most general use, give source and method of administering.

PRACTICE OF MEDICINE.

- I. What diseases are liable to occur in the right inguinal region?
- 2. Give signs and symptoms of floating kidney.
- 3. Give causes of malaria and varieties of organisms.
- 4. Name the eruptive fevers and also give period of incubation in each.
 - 5. What is hemophilia, and how treated?
- 6. Differentiate the terms delusion and hallucination, and also epistaxis, hemoptysis and hematemesis.
- 7. Give symptoms of diabetus mellitus and treatment.
- 8. Name causes of interstitial nephritis and the more common complications.
- 9. Describe empyema. Give diagnosis and treatment.
- 10. Give differential diagnosis between gout and arthritis deformans.

PATHOLOGY.

- I. What are infective granulomata? Mention several and describe one.
 - 2. Briefly discuss teratomata.
 - 3. Describe ingrowing toe nail.
- 4. What are anerobic bacteria? Classify, and mention an organism belonging to each class.
 - 5. Describe keloid tissue.
- 6. Define secretion, excretion, transudate, exudate.
 - 7. What is meant by "sensitization?"
- 8. What are the general characteristics of sarcoma in contrast to carcinoma?
 - 9. Describe the beef tapeworm.
- 10. What are the means used to prove that death has positively occurred? What is rigor mortis?

SURGERY.

- I. Give cause and treatment of chronic suppuration of the middle ear.
- 2. Give diagnosis, symptoms and treatment of gonorrheal conjunctivitis.
- 3. Give signs, symptoms, diagnosis, complications and treatment of philebitis.
- 4. Give symptoms and treatment of Potts' disease.
- 5. Give the differential diagnosis between fracture of neck of humerus and dislocation of shoulder joint. Outline the treatment of one,
- 6. What are the causes of ischiorectal abscesses? Give symptoms and treatment.
- 7. Describe a rodent ulcer. Give the structures in which rodent ulcer mostly develops, and give surgical treatment.
- 8. If called to a patient with a compound fracture of a leg in the lower third, which had been kicked by a horse in a barnyard, state in detail how you would treat such a case.
- 9. Give varieties of ileus, and some of the causes of each. Outline treatment.

10. Give the symptoms and physical signs of carcinoma of the breast.

OBSTETRICS AND GYNECOLOGY.

- 1. Define a trefoil, horseshoe, succenturiata and battledore placenta.
- 2. What is a caput succedaneum, and how is it formed?
- 3. Describe your method of preventing lacerations of the perineum during delivery.
- 4. What is your treatment in the delivery of twins with heads interlocked?
- .5. What is the danger of a prolapsed cord, and how do you treat it?
- 6. What is phlegmasia alba dolens, its cause and treatment?
- 7. How do you diagnose a face from a breach presentation?
- 8. Why is a face presentation hard to deliver?
- 9. Give differential diagnosis between a retroflexed gravid uterus and a pregnancy complicated by ovarian tumor.
- 10. What is the usual cause af salpingitis? Describe its course and treatment.

PHYSIOLOGY.

- I. (a) Describe the normal flow of blood through the arteries, capillaries and veins, and factors which cause the flow of each. (b) Give the relative rate of circulation in the arteries, capillaries and veins, and state how long it takes the blood to make a complete circuit of the body. (c) What is the total quantity of blood as compared with weight of the body?
- 2. (a) Define absorption and secretion. (b) Give some of the theories of absorption. (c) State difference between internal and external secretions, and give examples. *
- 3. (a) Define animal heat and give sources. (b) State some of the conditions which produce variations in the normal temperature. (c) Give normal temperature in axilla, mouth and rectum.
- 4. What is accomplished physiologically by the portal circulation?
- 5. Where is the respiratory center located, and what is internal respiration?
- 6. (a) What are the functions of the bile—the ingredients and how secreted? (b) Give tests for bile salts and bile acids.
- 7. Describe the function of the eustachian tube, retina, iris, cornea and tympanic membrane.
- 8. Give the locations at which the various heart sounds can be best heard, and state the cause of each sound.
- 9. Discuss briefly the physiology of the nervous system and give a classification of the nerve cells.
- to. What is blood pressure—mode of ascertaining—the average blood pressure in male and female?

MARYLAND MEDICAL JOURNAL

NATHAN WINSLOW. M.D., Editor.

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BALTIMORE, SEPTEMBER, 1916

DEATH OF DR. JOHN BENJAMIN MURPHY.

On Friday, August 11, the medical profession of this country, and of all countries, suffered an immense loss in the death of Dr. John Benjamin Murphy of Chicago. Dr. Murphy had been ailing and did not attend the meeting of the American Medical Association in June on account of indisposition, but it was not supposed that his condition was serious. He was present at the meeting of the American Surgical Association at Washington in May and took part in the proceedings. For a great many years Dr. Murphy has been one of the most conspicuous surgeons in America, and by some he was considered the greatest surgeon in the world. His investigations and communications cover almost the whole range of surgery. His first great contribution to practical surgery was the Murphy button for uniting easily and safely severed intestines and for performing gastro-enterostomy. By means of this device a great impetus was given to the surgery of the intestinal tract and many operators learned to perform successful operations in what had been hitherto an almost prohibited field. While the Murphy button has a field of usefulness, it has some serious disadvantages and its use is now much restricted, as an expert operator can do a gastro-enterostomy or an entero-enterostomy by suturing in nearly as short a time as with the button, and not leave a large foreign body in the intestinal tract that may cause trouble. The writer well remembers the first time he ever saw Dr. Murphy, which was at the Ninth International Medical Congress, held in Washington in 1887, at which time he reported several successful operations for gunshot wounds of the intestines. Since that time he has taken a prominent part in almost every important medical gathering in this

country. While he has enriched surgery in many directions, in recent years his greatest contributions have been in the field of bone and joint reconstructive work; and even Sir Arbuthnot Lane called him the greatest bone surgeon in the world.

As a clinical teacher Dr. Murphy was unsurpassed, and those who had the privilege of attending his clinics at the Mercy Hospital, Chicago, will long remember the mental stimulation and inspiration derived therefrom. Fortunately, these clinics have been appearing in book form for several years and are accessible to all who desire to profit thereby. He was a man of great fluency, never hesitating for a word and speaking with great rapidity in a high-pitched voice that carried to every part of the auditorium. In person he was very tall and thin and of striking appearance. In recognition of his great attainments and of his remarkable personality he was honored with the presidency of the American Medical Association in 1910 and with that of the Clinical Congress of Surgeons of North America in 1914. A mighty man indeed has fallen, and it will be difficult to find another who can take his place.

DISEASE DANGERS OF WAR WITH MEXICO.

Two years ago *The Journal of the American Medical Association* discussed the sanitary problems which must be met if our troops should have to go into Mexico for any length of time. "Today," says *The Journal* for June 24, 1916, "these problems should be considered again. The State militia is mobilizing; large bodies of men are already being concentrated in camps, and soon, perhaps, some will be moving to the Mexican border, if not into Mexico. The guarding of the border is likely to be the duty which will fall particularly to the militia and less trained troops. Actual invasion, if it should come, will no doubt devolve on the regular army.

"Typhoid and smallpox vaccination have practically removed the menace to life from these diseases under military conditions. The militia, however, has not been immunized against typhoid even approximately to the extent that the regular army has been vaccinated. The danger from dysentery, which is still a menace to men in army camps, has been materially lessened through improvements in the preservation and protection of foodstuffs and through increased facilities for the transportation of supplies. Amebic dysentery may be prevented by strict supervision of water supply and filth disposal. The use of emetin in the treatment of this condition will aid in rapidly eradicating such cases as may occur. Malaria and yellow fever, conquered through eradication of the mosquito and prevention of mosquito bites, are no longer to be feared. Cholera, preventable by cleanliness, and typhus fever, the scourge of Mexico, also have been studied, and their prevention can be accomplished by the enforcement of adequate sanitary regulations.

"The sanitation of camps has developed into a science. In the development of this science American investigators—many of them officers of the Medical Corps of the United States Army and of the Public Health Service—have led the way, and they may be depended on to carry out these measures to the fullest extent. Typhus fever is particularly a Mexican problem. It has been a factor in the present European war, and the measures instituted abroad show how completely this disease may be controlled. Much has been said in connection with the European war of gas gangrene, tetanus and secondary wound infection. The frequency of these infections has been attributed to the cultivation of the soil in the region in which the war is being conducted. If this be the cause, this condition is certainly not to be feared in Mexico. Much of the warfare in Europe has been trench warfare, and diseases peculiar to this method of warfare have frequently been discussed. The problem in Mexico would appear to be a different one. In any event, it hardly seems likely that the old saying that 'disease kills more men than bullets' will hold true.

"We can be sure that American medical officers of every branch of the service will do all that is humanly possible to protect our soldiers in the field. As a result of their service, the American soldier will be safeguarded so that the maximum number of efficient fighting units will be continually available to those concerned with the action of troops at the front."

Medical Items.

A LIST of physicians who have passed the examination given by the Board of Medical Examiners of Maryland was given out by Dr. Herbert Harlan, president of the board, this morning. The names are:

William W. Anderson, John N. Andrews, Herman S. Applebaum, Richard T. Arnert, Bartus T. Baggott, John C. Baldwin, George A. Bawden, Edward H. Benson, Hyman S. Berman, Sam Brock, Charles R. Brooke, Benjamin B. Brumbaugh, Henry F. J. Buettner, Charles H. Burton, Paul W. Christman, Henry B. Conrad, Luigi D. Di Stefano, Joseph P. Eidson, James A. Etheridge, John E. Evans, Ruth Fairbank, Bernard J. Ferry, William P. Finney, Jr., Hugh C. F. Gill, David H. Hallock, John W. Harris, Charles M. Harmon, Thomas J. Heldt, Jack M. Hundley, Bernard S. Jacobson, Benjamin M. Jaffe, Bernard R. Kelley, Joseph S. Lawrence, Allen D. Lazenby, Asa L. Lincoln, Edward K. Leo, Frank C. Marino, Walter B. Martin, Henry A. Merkel, Milo K. Miller, Joseph E. Moore, Milfert W. Myers, Joseph G. O'Brien, Vincent Joseph Oddo, William F. O'Malley, Sidney O. Reese, Jr., Adam William Reier, Horace W. Reid, Charles A. Reifschneider, Francis E. Roberts, Harry William Rosenthal, Francis F. Ruzicka, Cyril I. Sease, Richard Lee Silvester, Samuel Snyder, James S. Speed, Richard E. Stifel, Alan C. Sutton, Edward P. Thomas, Henry M. Thomas, Jr., William C. Thomas, Prescott S. Tucker, Victor R. Turner, Norwood W. Voss, William F. Williams.

THE International Health Commission of the Rockefeller Foundation hereby announces the change of its name to International Health Board of the Rockefeller Foundation.

Dr. J. CLEMENT CLARK has been re-elected superintendent of the Springfield State Hospital for the Insane, Sykesville.

Dr. Henry Lee Smith, class of 1894, of the Maryland Medical Reserve Corps, has been ordered to Mt. Gretna, Pa., for duty.

Dr. George B. Wolff of the Sheppard and Enoch Pratt Hospital has returned from a vacation at the home of his parents in Myerstown, Pa.

Dr. Lewis A. Sexton, second assistant superintendent at Johns Hopkins Hospital, who

has been acting as admitting physician for the last month, will leave tomorrow with Mrs. Sexton to spend a month's vacation in Alaska and Northwestern Canada. Dr. and Mrs. Sexton will "rough it" during part of the long trip and will fish and hunt. Dr. Sexton is an expert fisherman as well as angler.

Dr. Stewart V. Irwin, Baltimore, returned to America July 11 after a partially successful attempt to inspect prison camps in Germany.

Dr. AND Mrs. Frank Martin closed their home, 1000 Cathedral street, and left for the North, where they will spend the late summer.

Dr. AND Mrs. IRWIN J. BEACH and Miss Ethel G. Beach of West Lafayette avenue are spending some time at Ocean Grove, Asbury Park and Newark, N. J.

Dr. And Mrs. Joseph Irwin France, class of 1903, of 15 West Mount Vernon Place, who are spending the summer at their country place at Port Deposit, left for a motor trip through the Valley of Virginia.

Dr. E. P. Smith, class of 1912, College of Physicians and Surgeons, superintendent of Mercy Hospital, returned yesterday from his vacation in the mountains of West Virignia and in Eastern Ohio.

The second quarterly meeting of the deputy State health officers was held at the Medical and Chirurgical Faculty Building in Baltimore. Dr. C. Hampson Jones presided and an address was made by Dr. John S. Fulton, secretary of the State Board of Health. Newly appointed health officers received their commissions. An open discussion of the various phases of the domestic quarantine and contagious diseases was held.

Dr. James J. Mills, instructor of ophthal-mology at Johns Hopkins Medical School, sailed August 6 on the Rochambeau for Bordeaux, France. He has been engaged by the chief physicians of the town of Biarritz to assist in the treatment of injuries to the eyes of the soldiers, and expects to return in September.

DR. WILLIAM H. WELCH sailed from New York, August 6, for England to study institutions from which he may get ideas for the organization of the Rockefeiler School of

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COLON RESECTION AND ITS INDICATIONS: REPORT OF CASES.*†

By Frank Mertin, M.D.,

Professor of Operative Surgery and Clinical Surgery in the University of Maryland, Baltimore.

Note-Since this was published one other case has been successfully done.

THE colon, as we all know, is quite commonly affected with obstructive lesions due to growths, strictures, or what-not; but the most common factor is cancer, especially of the rectum, the ascending colon, the sigmoid, and lastly, the splenic flexure and transverse colon. It so happens that I have had to deal with it in these various locations a number of times. The two factors which impress me as exceptionally important in reference to the work on colon surgery are, first, a keen insight into the vascular distribution of the colon, and, second, an accurate knowledge of its lymphatic distribution.

First, in reference to the vascular distribution, it is along the arteries that the lymph currents flow and the lymph-glands chiefly lie. The large intestine is supplied by branches of the superior mesenteric artery and by the inferior mesenteric artery and their branches. The ileocolic artery, which appears to continue in the direct line of the main trunk of the superior mesenteric artery, supplies the last few inches of the ileum, the cecum, and a part of the ascending colon. It takes origin at or near the level of the third part of the duodenum, and descends, inclining to the right, to reach the ileocolic angle. The middle colic arises near the lower border of the pancreas, and directs its course toward the right, in the layers of the transverse mesocolon, where it divides into branches, each of which again divides to form a series of arches, joining on the inner side of the ascending colon with the right colic, and toward the splenic end of the transverse colon in

^{*}Read before the Southern Surgical and Gynæcological Association, Cincinnati, Ohio. December 14, 1915.

[†]Reprinted from International Clinics, Vol. II, Series 26.

an anastomosis with the ascending branch of the left colic artery. The sigmoid arteries, one to four in number, arise directly from the inferior mesenteric artery and, radiating outward and downward in the mesosigmoid, divide each into an ascending and descending branch; these, anastomosing with their neighbors, form a series of arches, from the curved side of which branches are given off, sometimes to form secondary arches, sometimes to run direct to the intestinal wall.

The so-called marginal artery is the result of anastomosis of the branches of the left colic and sigmoid arteries, extending from the splenic flexure to the lowest part of the sigmoid flexure. Here it stops, for the superior hemorrhoidal artery, which is the continuation of the inferior mesenteric trunk, after the sigmoid arteries have left, does not divide into two arch-forming branches, but runs directly to the intestinal wall. It is exceptionally important to bear this in mind, for at this so-called "critical point" of Sudeck, which is at the junction between the superior hemorrhoidal artery and the lowest sigmoid artery, trouble occurs if this knowledge of the blood supply is not kept in mind. Ligature of the superior hemorrhoidal artery and the lowest sigmoid artery below the "critical point" must almost inevitably result in gangrene of the portion of the rectum supplied by them. So in intestinal resections a knowledge of this cannot be overestimated.

It is, as I said, very important to have an accurate knowledge of the lymphatic distribution and the prominence of the lymphatic vessels. The distribution of the lymphatic glands is of great moment in all surgery for malignant conditions of the colon, because these are the agents which drain the part that is affected. Whereas a malignant disease of the colon may oftentimes remain a local one, still through these channels metastases occur, in spite of the fact that many claim the lymphatics in this structure are few as compared to those in the small intestine. They sooner or later carry the infection, and the surgeon, unfortunately, meets these cases usually after this has happened; namely, late in their course, and frequently so late that they are either inoperable, due to widespread metastases, or offer very slim chances for permanent relief when operation is resorted to. Furthermore, they are not brought to us many times until acute intestinal obstructions demands surgical intervention.

You will all agree with me, I am sure, that under these conditions we have at best a bad surgical risk. I know of no condition graver, nor one with slimmer chances of recovery, than a case requiring resection of the colon for cancer in the height of acute intestinal obstruction. On the other hand, when they can be operated on moderately early (and there should be no reason for delay now, with the better means at our command for diagnosis—and I refer here especially to the X-ray, which has been of such infinite value in clearing up this trouble) surgery offers most excellent promise. It is, however, a very fortunate fact that

malignant disease of the colon, barring exceptions, may remain for

a long time a local process.

H. S. Clogg¹ points out, in a valuable paper, that cancer of the colon is in many cases a local disease, and that secondary visceral deposits are not the great barrier to any radical operation. Berkeley Movnihan, in his recent book on abdominal operations, says: "We are, I think, entitled to believe that a carcinomatous growth of the colon, by reason of its small size, its (apparently) abrupt delimitations, its long restriction to the intestinal wall, the tardy appearance of the metastatic deposits and the paucity of the lymph-glandular supply, should prove amenable to successful attack by the surgeon. It would appear to be true to say that if cancer is to develop in the body, there are few places it could select with so happy a chance to the patient of ultimate and complete relief as the large intestine." Again, another authority, Charles H. Mayo, states in his paper, "Resection of the Rectum for Cancer of Sphincter," which he read before this association several years ago: "The inflammatory and cicatricial zone which surrounds such areas of ulceration acts as an effective cofferdam, preventing an early metastasis." I think these important observations above mentioned have been noted by most operators in this field, and they are observations which unquestionably add encouragement to surgery direct for the relief of cancer at this point.

During the past two years I have operated upon two cases of cancer of the colon where the process has been of long duration, and at the time of operation there was extensive dissemination and infiltration in the surrounding tissues. In the first case an extensive extirpation of the transverse colon was done, along with the removal of the gastro-colic omentum. The infiltration even extended (apparently) into the greater curvature of the stomach, for in ligating it off the attachment of the gastrocolic omentum, close to the stomach wall, there was noted infiltration of (apparent) carcinomatous tissue, and later anastomosis was made between the hepatic flexure and the descending colon. The patient, much to everybody's surprise, recovered *in toto*, and is still living and (apparently) doing well. This was two years

ago this month.

The second case was operated on last spring, and there was such widespread cancer (the activity of the cellular proliferation had been infinitely more marked than is usually noted, starting from a ring-like primary stricture of the ascending colon, adenocarcinoma) infiltrating the lymphatics along the entire marginal artery of the colon, with a large nodule of carcinoma at the junction of the transverse and splenic flexure, and likewise the first few inches of the ileum from the ileocecal valve, that I did a complete resection of the colon with eight inches of the ileum. The ileum was laterally implanted into the sigmoid. Here likewise an uneventful recovery followed.

¹ Lancet, 1908, ii, 1007.

These cases bear out what is agreed by many, that the progress in colon cancer is slow and the cellular proliferation is not very active; in fact, it is looked upon, as I have already said, as a local disease at first. With these fortunate facts all should be stimulated to institute much earlier intervention.

As an evidence of the wisdom of this I cite briefly the case of a man of 40 years of age upon whom I recall doing a resection of the descending colon for carcinoma which had not extended. This was done to years ago, and the patient is still living and in good health. Whereas these observations are usually the rule, exceptions occur frequently, and I recall many cases where the growth was rapid, a secondary metastasis of the liver occurring very early. A number of such cases where adenocarcinomatous strictures are well removed by resection and no other invasion noted, all promised well, but liver metastasis occurs with fatal results in 18 months or two years. However, radical procedure should be undertaken always, and at the earliest possible moment, as it offers the only promise. We all know the pathetic picture of those cases which rely on the use of the X-ray and radium as a means of help. They are distinctly of no value, and there is nothing we can offer, save the knife.

CHOICE OF METHODS FOR OPERATING.

These vary in the clinics of the different operators; some prefer the end-to-end method, some the lateral anastomosis. Of course, the thing of moment is to get well around the growth and do a widespread extirpation. After that is thoroughly done, the procedure of restoring the lumen is a minor one, providing the anastomosis is well done. The ideal method is end-to-end anastomosis, which can be done perfectly well, even though we have to anastomose the lumen of the small intestine into the large bowel.

The very first case I recall doing in my series was an adenocarcinoma in the descending colon; a widespread excision was done and an end-to-end anastomosis made by use of the Murphy button. This was used, I might say, because it was reported to me falsely that the patient was badly shocked and a time-saving device was required. At the completion of the operation I found this not true, however, and an uninterrupted recovery followed. This was many years ago, and I know the patient to have been alive five years afterwards, but I am unable to report further, as I have lost touch with the case. This was the first and only colon resection in which I have used the Murphy button. I have used it frequently in rapid resection of the small intestine where speed was demanded.

Since then I have always employed a lateral anastomosis by suture, except in four cases of resection of the entire cecum, part of the ascending colon, and a small portion of the ileum. In these cases lateral implantation of the ileum into the ascending colon was resorted to. The chief objection to an end-to-end anasto-

mosis (which, after all, is the most ideal method) is that the blood supply may be encroached upon sufficiently to possibly produce small points of necrosis at the suture line, and the chief cause of defeat in all intestinal work, namely, leakage, occurs; whereas, in lateral anastomosis, if the work is neatly and carefully done, such an occurrence is not liable to follow, and obviates the difficulty which occasionally arises in dealing with the mesenteric attachment.

In this series of 50-odd cases there have been but five complete resections of the colon, and I have embodied at the end of this report complete histories of these five cases. Colon resection, in its broad sense, for the relief of cancer, which we seem to have always with us, is an undisputed surgical problem; but the wide diversity of opinion in the surgical world comes with the radical operation for colon resection as practiced by Sir William Arbuthnot Lane for the cure of that vast array of conditions assumed to be caused by "intestinal stasis." All say that Lane's operation is radical work, and it is radical work; but, to emphasize how striking the diversity of opinion is, you will hear the remark: "Lane is too radical; he is ahead of his time; his colectomy is unwarranted." But usually when a man of authority is applied to for an opinion, I find there is not one who condemns the man or his method in toto, and no unfavorable opinion is noted. The time has not yet arrived, in my opinion, when we can either condemn the operation or accept it without hesitation, as Lane would have us do.

Lane unquestionably is a genius and a wonderfully able and skilful surgeon, and all of his work has been distinctly worth while and along markedly advanced lines. The words of comment made by Charles H. Mayo in his discussion of the article written by John G. Clark on the "Removal of the Colon for Obstructive Fecal Stasis, with Report of Eight Cases," read at the Atlanta meeting of this association two years ago, clearly shows how much Lane's opinions in the past have been thought of. He said on this occasion: "Lane at this time occupies a more enviable position than any other living surgeon in regard to his work. He was the first man to open the jugular vein and wash out clots in sinus thrombosis, following mastoid abscess. He has done more to put bone surgery on the map than any other living surgeon. His work on cleft palate has led to much discussion for relief of the condition. Lane's work and methods have been widely discussed and their influence broadly distributed. Adverse criticism has become less of late, particularly in England. This goes to show that his name and work are held in high regard in this country."

Never before in the history of surgery has the subject of intestinal surgery claimed more widespread attention. The colon with its fecal stasis is truly the bane of modern civilization. Whether the abnormalities of the colon produced by malpositions, kinking and adhesions are of congenital origin, or whether produced by bad workmanship on the part of Nature, as our English

friend would have us believe, it is a tremendous portal of entry for disease, in consequence of the lack of free drainage and the bacterial activity produced and generated here and carried far afield; therefore, it is justly held responsible as the primary source of infection. Lane emphatically states that it is the cause of all disease except cancer, and that the only medicine to relieve this condition is Russian oil. If that does not succeed, there is but one operation, namely, colon resection. His belief is that unless free drainage can be secured, absorption is going to continue. If the obstruction is such that it will not drain by the use of Russian oil, then the colon should be removed. Now, in just what percentage of cases does the profession-at-large look to the colon as the responsible factor in autointoxication, or as the portal of entry, as the cause of the vast army of disorders? is the great question at issue.

Authorities by no means agree as to how intestinal stasis causes alimentary toxemia, and not a few even deny that it is responsible for the toxic manifestations which are attributed to it, and are looking only to the teeth, tonsils, sinuses, or what-not, as the chief portals of entry in every case. But, be that as it may, there is one fact that can be affirmed without fear of contradiction, and, despite the difference of opinion, the condition is so frequent and prevalent as to warrant the belief that there is an intimate relationship between intestinal stasis and alimentary

oxemia.

Alimentary toxemia is defined in the following words by F. W. Andrews: "The absorption from the alimentary canal by chemical poisons of known or unknown composition in sufficient amounts to cause clinical symptoms, the blood having served as the channel of distribution to the tissues which are poisoned." And many there are who believe that fecal stasis is directly responsible for many maladies, both of mind and body. The clinical picture in these cases is so well depicted by Lane, as well as by other noteworthy contributors, such as Smith, Goldthwait, Reynolds, Clark and many others in this country, that there is no need to touch on this.

J. E. Goldthwait of Boston is as ardent an enthusiast as Lane of England, although he believes that he can relieve, by his specific methods of treatment, this condition without colectomy. In a series of brilliant papers Goldthwait shows how faulty posture of growing children and of women and young girls tends to weaken the skeletal supports and to place at a disadvantage the ligaments and muscles of the abdomen and back. J. G. Mumford gives credit to Glenard for the angulation theory of stasis and autointoxication. In consequence, he cites the fact that "a great number of persons are the subject of congenital ptosis, and the anatomist long ago pointed out that one person in every five is born with a mesentery upon the entire colon, and that the stomach also is more closely attached. When such attachments fail to retract, the victim carries through life a fastrocolonic

ptosis." This is entirely in accord with the theories advanced by Lane as to the mechanics and the alterations which are undergone

by the gastro-intestinal tract.

Lane stands foremost as the most ardent enthusiast in attributing autointoxication to stasis. In his article on "Chronic Intestinal Stasis," he states that, unless the capacity of the several tissues of the body to resist entry of certain organisms is inhibited by the autointoxication resulting from intestinal stasis, it is impossible for these diseases to develop. Therefore, to meet these diseases, he adopts means to improve the drainage scheme, whether simply mechanical or operative, with the most excellent results. This is nowhere better exemplified than in the extraordinary rapid disappearance of large tuberculous glandular masses in the abdomen: after disconnection with the large bowel the disease disappears, and the health and weight of the patient improve accordingly. On elimination of the supply of poison, the color of the skin changes with remarkable rapidity, the deep brown or coppery tint disappears in these cases (if they have simulated Addison's disease), and is replaced by the warm red color indicative of health.

The great difficulty in the treatment of chronic intestinal stasis and its result, so Lane says, is to recognize when it is too late to interfere; in other words, when the end result has assumed such proportions that the removal of the primary cause does little or no good. Again, as regards the influence of these toxins or poisons on the nervous system, Lane has seen a patient who has been confined to bed for many months, having neither capacity nor desire to stand or walk, and whose mental condition was such that she was regarded by many as an imbecile, become a happy, active and intelligent woman within a few weeks after removal

of the large bowel.

I might add that during the Clinical Congress of Surgeons of North America, held recently in London, the most sought-after man there was Lane, and he, of course, attributes everything to the colon. He gave every facility for not only seeing him operate and remove colons by the score, but we were able to see his patients before operation and afterwards. I saw him do in one morning three colectomies, and I must admit they were most skilfully and masterfully done, maintaining in his clinic that they removed the cause of such ailments as stomach ulcer, gall-stones, tuberculosis, goiters, chronic arthritis and, in fact, the large number of diseases resulting therefrom. He actually closed cases with the gall-bladder full of stones, upon whom he had done colectomy, and mentioned to the audience the gall-stones would be taken care of now that the colon was out. He showed a boy with a supposed tuberculous arthritis of the wrist-joint, sent into Guy's Hospital for amputation of the forearm. The X-ray pictures clearly showed a disorganized joint. He left the splint on and removed his colon. This boy was shown at his clinic some few months following the operation with a cured wrist. A case of large goitre

was shown to be rapidly reducing in size following a colectomy. A young woman with widespread universal arthritis, with every joint in her body locked, was shown a month following a colectomy, and the remark he made was that she was progressing toward recovery, and could already use her fingers and hands to some extent; and so I could mention many other cases. I fail to remember the number of colectomies he has already done, but it is a very large number, and he is apparently doing them without mortality.

His short-circuiting operation, or the ileosigmoidostomy, he has abandoned, and said that in his later cases he would not have performed that operation could he have gotten the consent of the patient to remove the colon. As a matter of fact, I saw him do three colectomies on cases upon whom he had formerly done the

short-circuiting operation, or ileosigmoidostomy.

Nassau² calls attention to a picture that is worthy of mention because it is so commonly noted by all of us, and so closely allied to this particular subject, namely, that when doing our common operation, appendectomy, how often do we see cases where the appendix is little at fault, but we have presented in many of these cases enormously distended ceca which are religiously left undisturbed, the bearers of which had complained constantly of annoyance from vague pains in the right iliac fossa; and other cases, of ventral fixation, nephrorraphies, gastro-enterostomies, in which ptosed and dilated colons were observed at operation, and in whom there had been but little abatement of symptoms or no improvement in the general health!

I am not going to take up your time further with any of the serious scientific problems which may speak for or against this operation as a justifiable procedure. Nor am I going into the long list of symptoms as given in the advertising pamphlets sent out by the different houses, setting forth albolene, Russian oil, liquid paraffin, and so on; for, although I am not an ardent enthusiast of so radical an operation as colon resection, I am convinced that there are cases manifestly calling for just such radical procedures.

This paper is based generally upon my own personal observations and impressions gained from seeing the work of others. I have not attempted to make an exhaustive review of the numerous contributions to the literature on the subject, and I believe my chief reason for reporting on this matter was the encouragement offered by the splendid result obtained in the first case in which I found it necessary to perform such a widespread resection. Briefly, the case of this patient is as follows:

A woman, 40 years of age, was brought to me from the country with so-called appendicitis. I operated on her at the Union Protestant Infirmary, and did the ordinary appendectomy. It was noted at the time that she had an enormous cecum very much ballooned, and the whole colon seemed to be redundant and big.

²Annals of Surgery, 1913.

I remarked at the time that I thought that was probably the cause of her discomfort, and the appendix probably played no part in it. I was just leaving for my vacation, and did not see her afterwards. During my absence from town she was brought back to the Union Protestant Infirmary and operated upon again, on account of abdominal pain, by another surgeon. An ovary was removed, a ventral fixation of the uterus was done, an exploration of the entire abdominal cavity was made and the abdomen closed. No relief followed, and her discomfort continued. She entered the Union Protestant Infirmary again later on, and was treated for stomach ulcer without relief. During all this time she continued to have symptoms, and the supposition was that it was stomach ulcer that was causing them. The following winter she was brought to me; she had become very ill. There were vomiting, inability to have bowel movements, tenderness over the left abdomen and over the ileum, kidney secretion had decreased until she almost had suppression, and she was emaciated and markedly weak from lack of nourishment. The X-ray findings in her case were as follows: Following large doses of bismuth, there was shown kinking at the pylorus, also a lot of bismuth in the cecum and ascending colon. There were also shown a large cecum and a redundant loop of the ascending colon folded back on the cecum, and in this loop the bismuth seemed to be retained. Pictures were taken again at the end of 12 hours, showing the bismuth still present, as though the kinking or this folding of the colon back upon the cecum had obstructed the cecum so that there was no passage of the bismuth on through the large bowel. This was so convincing that I resorted to a resection to overcome the intestinal stasis from which she was suffering. A good recovery followed, and later on she was brought back to me, still without free drainage from the colon. X-ray pictures again showed interference at the point of anastomosis. I went in the second time and freed that, and from that time on she has had complete relief. gaining back her health slowly after the source of her absorption

This case was done three years ago, and only recently have I seen the patient, who tells me she is perfectly well, and in her presence I asked her husband what he thought of the result, in order to get his opinion, which all along had been most pessimistic. He assured me, with a great deal of gratitude, that he considered his wife a well woman. This case excited my interest, because the patient's condition was of such gravity that we feared an operative death, and undertook it with the greatest anxiety. This was long before I had seen any of Lane's work, and I was guided purely by the X-ray findings and clinical condition of the patient. If there ever was a case indicating fatal issue from absorption, this was one, and distinctly warranted the operation.

INDICATIONS.

I thoroughly agree with the opinion of Clark that we should not be too optimistic concerning Lane's theories and practices, for there is unquestionably a considerable element of danger, and a good, legitimate working basis would be to attempt relief by this procedure after other agents had failed, provided obstructive symptoms are evident. He applies the same rule to intestinal stasis as to cases of movable or floating kidney: no obstructive symptoms, no operation. While this will not apply absolutely, it is a good working basis. I believe that when the X-ray examinations show very definite angulation at the splenic and hepatic flexures, with large, redundant colons filling the pelvis, associated with evidence of toxemia, in which relief does not follow other known means, then colectomy should be resorted to before the cases become so toxic that they cannot undergo nor withstand the operation with safety.

MORTALITY.

In Lane's work, published in 1909, on "The Operative Treatment of Chronic Constipation," he states: "Except in patients who are supremely toxic and feeble, the removal of the large bowel is not accompanied with any especial danger to life. If the patient is very toxic, and the resisting power to organisms is correspondingly lowered, there is a considerable risk of infection of the incision in the abdominal wall. I have lost more than one patient in this way. I believe that infection takes place from the bowel which is being excised to the wound if it is allowed to rest upon it. I attempt to avoid this by fixing sterile impermeable cloths, not to the skin-edge, as I usually do to render infection from it impossible, but to the peritoneum, shutting off the divided soft parts from any possible contact with the bowel, whose circulation has been impaired during the process of excision. The peritoneal cavity seems quite able to escape this infection. If, however, the obstruction be acute and the intestines and abdomen be distended, the risks are those of the condition calling for interference rather than of the operation itself." These are Lane's opinions as to the dangers of the operation. The probabilities are, however, in the light of wider experience and fuller knowledge, that if better judgment is used in deciding which colon had better be removed and which had better be left, and if greater care is exercised in the carrying out of the various steps in the technic of the operation and post-operative treatment, there will arise a course in between, as it were, the ultra-conservative and the ultra-radical which will at all times be open to the well-balanced, thoughtful surgeon, and which will lead to a decreased mortality rate and a lowering of the percentage of unsatisfactory results in operating. It is purely a question of respecting your blood supply and making careful and neat approximation to assure against leakage.

COLON RESECTION FOR CONSTIPATION ALONE.

I cannot accept the opinion that an operation of such gravity should be resorted to for control and relief of this condition per se. From my limited experience, I should unreservedly say that not only is the removal of the colon too hazardous an operation, but one that is totally unjustifiable in these cases for the probable outcome of relief. Do I believe in any operation for the relief of this condition? Yes, most certainly I do, and have done many with excellent results, namely, partial or limited resections, and have achieved excellent results in those cases of long, angulated, redundant sigmoids by resection of the portion of the colon at fault. Some of the results have been really brilliant. I am not overoptimistic and overenthusiastic, and distinctly believe in adopting the "mid-path" or the conservative side of this problem, and I might say that my attitude is strengthened by the fact that out of some 50-odd cases of colon resections I have seen fit to do but five radical colectomies.

ILEOSIGMOIDOSTOMY.

In regard to this procedure, I might say that in none of my cases have I seen a condition that I considered warranted the so-called short-circuiting operation of Lane's (ileosigmoidostomy), and therefore have never performed an ileosigmoidostomy operation. It has never appealed to me in any way, and my only experience has been with one case in which I attempted to save the life of a patient practically dying from obstruction several months after this operation had been done at another hospital.

BRIEFLY SUMMARIZED.

I. So far as cancer of the colon is concerned, this is an undisputed surgical problem, and it should be dealt with by operative intervention and widespread resection done—the sooner, the better.

2. It seems to me that in analyzing the results of colon resection for other than malignant causes the most critical and careful judgment should be exercised, and no case reported favorably unless the case has been kept under the strictest surveillance for a considerable period, for its merits are to be judged not by its immediate, but by its ultimate results.

3. The operation is strictly of the major type, and should be undertaken only in obstinate and exaggerated cases; but they should not be waited upon so long as to bring about a toxemia that will of itself defeat the good effects of the operation.

4. It is distinctly too hazardous, as I have said before, to be undertaken purely for the relief of constipation alone. I feel that it is best in these cases to deal with the localized obstruction, or the actual sharp angulation, which is presented in so many of these obstinate cases, rather than do a complete and total resection.

5. There are dangers attending it, and they should not be lost sight of. They are, in the majority of cases, remote post-operative

ileus as well as immediate obstruction. These are the most common causes of the fatalities, as well as most of the ill-effects that

may follow.

- 6. Theoretically, the colon is, fortunately, a part of the human anatomy which can be dispensed with without inflicting serious damage to the physiology that is the better part of it. It is needless to call attention to the fact that in most of the cases a considerable portion of the colon is always left, the sigmoid, and in a good many cases a part of the descending colon, if necessary, which is sufficient to compensate for and take on the function of the portion that has been removed, and, this amount maintained and free drainage established, intestinal toxemia ceases.
- 7. I have not observed that thirst in any of my cases was complained of, in spite of the physiologists pointing this out as one of the theoretical dangers. This is purely fallacious and incorrect, as is likewise their statement in maintaining that diarrhoea is a concomitant. This I have not observed to be a fact, nor have I seen any serious physiologic derangements in those cases that I have done. The patients have gained in strength and in weight, and in Cases I and III they have been made useful citizens, whereas before they were bedridden invalids.
- 8. The chief dangers that we have to keep before us are in the operation *per se* and in the possible immediate and post-operative obstructions that are liable to follow.

COMPLETE COLECTOMY.

CASE I.—Mrs. G. W., aged 40, married, was admitted to my service at St. Joseph's Hospital, February 6, 1912, complaining of severe attacks of pain in upper abdomen, vomiting, and retention of food, with marked weakness and loss of weight. history: Was brought to me July 14, 1911, giving history of pain and discomfort, for the last 10 days, over her appendix region. She entered the Union Protestant Infirmary, and I removed her appendix, following which she made an uninterrupted recovery. At the time of operation it was noted that the cecum was enormously distended and the whole colon redundant, and I expressed the opinion that she was probably suffering from the retention in the colon rather than from one in the appendix. During the summer of 1911, while I was away, she was again brought to Baltimore and operated upon at the Union Protestant Infirmary. The right ovary was removed and a ventral fixation done. Examination of gall-bladder, kidneys, etc., revealed nothing of importance, and her abdominal wound was closed. She returned home unimproved, and a few weeks later came back to Baltimore, under the care of a stomach specialist, complaining of severe pain in her upper abdomen. Her stomach was repeatedly washed and anodynes given for her pain during her stay of 10 weeks at the hospital. She again returned home without improvement. Present illness: Her present illness dates back to the summer of 1911. The clinical picture is one of the patient exhausted from vomiting

and suffering from severe abdominal pains. These pains are periodical in character and located chiefly in her upper right abdomen. She was brought in with a probable diagnosis of gall-stones. The gastric contents were analyzed and found to be normal. X-rays were taken, following large doses of bismuth, with the following results: Stomach emptied itself very slowly, a distinct kinking was noted at the pylorus, the cecum and ascending colon were found to be markedly dilated and a redundant loop of the ascending colon folded back on the cecum, and produced a pouch in which the bismuth accumulated and was retained, showing the cecum had been obstructed below this point, due evidently to the kinking of the bowel. Heart and lungs present no abnormality of significance. The kidney output is very low. Patient is pale and anemic, and has lost considerable weight, due chiefly to her starvation.

Operation.—On February 8, under ether, abdomen was opened by a right median line incision. The pyloric end of the stomach came into view, and it showed a distinct kink, due to traction from below. The pylorus was found to be somewhat constricted and much thickened. Further examination revealed many adhesions tying the fundus of the gall-bladder to the pylorus. These adhesions also extended to the free border of the liver and the hepatic flexure of the colon, tying all these structures in a mass. The adhesions were all removed, thus freeing the hepatic flexure at the colon and relieving to a great extent the kink at the pylorus. The omentum and a loop of the small intestines were adherent to the parietal peritoneum in the cicatrix, resulting from previous lower abdominal incision. These adhesions were finally relieved with much difficulty, especially where the small intestine was caught. When the omentum was freed, the ascending colon was found to be tied to the scar a distance of three or four inches and almost completely obstructing the bowel at this point. This was also freed, and further investigation showed that the ascending colon was very long and redundant. It took about two hours to free the abdominal adhesions, which were largely the result of former operations, and I had a shocked patient to continue with, but concluded it was best to go on and do a partial resection of the colon, because of the marked redundancy of this organ. About 24 inches of the bowel, extending between the cecum below and over to the left arm of the transverse colon near the splenic flexure above, were removed. The mesenteric vessels were tied, a pursestring was put around the colon, it was clamped, cut across with a thermocautery near the splenic flexure, the end invaginated and the pursestring suture tied. This was reinforced by a few mattress Lembert sutures, and the same method of resection was done just above the cecum. A lateral anastomosis was then made between the cecum and the descending colon just below the splenic flexure. The abdomen was then closed with drainage.

CASE II.—Miss F. O., aged 37, American, was transferred to my service at St. Joseph's Hospital, November 24, 1914, with a

general vague history of illness dating back more than four years, which principally consisted of obstinate constipation, indigestion and pains in abdomen. The obstinate constipation dates back even further, and has been the predominating symptom in her case. The pain was not definitely localized in any particular part of the abdomen, save that it was more pronounced in the left lower abdomen, in the ileocecal valve, and she complained of it much more rarely when the bowels were freely moved; but they are never moved without the use of strong purgatives. As this symptom has grown gradually worse, it has now become very obstinate. She is a small woman, anemic and very nervous. I suggested the operation on account of this obstructive form of constipation, and on account of the X-ray findings, which showed a marked angulation at sigmoid, high angulation of splenic flexure, dilated transverse and ascending colon and cecum. Incompetency of the ileocecal valve, with quantity of bismuth enema in terminal ileum, also noted.

Operation.—Anesthetized with ether, abdomen opened by long left rectus incision; ileocecal area was then sought and brought up into the wound and the blood supply to the last two inches of the ileum ligated and severed between ligatures. The ileum was then clamped and severed by means of electric cautery several inches from the ileocecal valve. The ascending colon, which was markedly dilated, was then delivered into the wound, and the blood vessels in the mesocolon, beginning from below upwards were doubly ligated close up to the bowel margin. The same procedure was carried on until the colon was freed around to the sigmoid flexure, and anastomosis was made between the end of the ileum and through the upper portion of the sigmoid flexure, as indicated and shown in the figures. The bowel was then severed by cautery and the opening beneath the anastomosis closed by interrupted silk suture. A rubber tube was then passed into the rectum and through the anastomosis, three inches above it (as in all these cases); six ounces of Russian oil were then injected and kept in. I might say that in this case, as in all the cases, I employed subcutaneous salt solution through the entire operation, and 1000 c.c. were taken up. Daily afterwards six ounces of Russian oil were given through the tube and the tube left in for eight days. After this the tube was removed and the patient given, night and morning, two ounces of oil by mouth for 10 days. wound healed under one dressing, and patient made an uninterrupted recovery. The lantern slides show the specimen which was removed and X-ray plates before and after operation.

CASE III.—Mrs. R. E. C., aged 39, married, entered hospital in my service November 17, 1914, with symptoms of pronounced abdominal pain and long-standing chronic and obstinate constipation. Her history dates back a number of years. She is rather a slender, frail, little woman, and has recently grown so weak and feeble that for a number of months she has been a bedridden sufferer. She has rather a pathetic history, in that during her

illness of five or six years she has had a great many surgical treatments. The first operation was supposed to have been a gastro-enterostomy for gastroptosis. No relief was gotten, and in June, 1913, a second operation was done, and no evidence of the gastro-enterostomy was found. The appendix was removed and abdominal adhesions severed. The rest in bed following this operation seemed to help her to some extent, but in a short while her symptoms recurred, and in April, 1914, she was again operated upon for abdominal adhesions, this time by myself, and I found adhesions running from the incisions and fixing the stomach pretty definitely to the abdominal wall, and also the colon to the abdominal wall. It was noted, however, in this operation that she had an enormously redundant and large looping transverse colon down into her pelvis. Nothing was done in the way of its relief, however, and she was kept in the hospital at rest for quite a little while, hoping that it would improve her general condition. The constipation was not improved, however, and no apparent help was gotten. She continued to complain of her nervousness and general weakened condition, associated with headaches, loss of appetite and dizziness. When I was applied to again to go in and see what I could do, I told them, judging from what I had seen at the former operation, that the only thing I thought would be of help to her would be to remove the colon, to get rid of her obstructive constipation.

Operation.—On November 19, 1914, I operated and took away her colon, using the technic that I have already described, and closed her without drainage. She made an uninterrupted recovery. The lantern slides show pictures before and after operation. I might say the X-ray findings in her case before operation show a long, circuitous, aberrant sigmoid, distended transverse colon and incompletely-filled cecum and ascending colon, probably due to impaction; also a high, angulated splenic flexure and tremendously tortuous upper rectum and sigmoid. A recent report from her physician states that she had some diarrhoea five weeks after returning home from the hospital. Previous to operation she had nervous attacks bordering on hysteria, but she never became unconscious. Since operation she has been quite free from these attacks, although at times still nervous. She looks improved, and her face indicates that she is considerably better. She has lost that haggard expression, and her general appearance and conduct are nearer normal. She has gained in weight, and is sufficiently

strong to perform many of her household duties.

CASE IV.—Miss L., aged 30, Irish, admitted to my service at St. Joseph's Hospital, November 16, 1914, suffering with general arthritis. Every joint in her body locked. She had had rheumatism for many years; tonsils were removed three years ago without any benefit. Present illness dates back seven years, to an attack of rheumatism from which she has never recovered. The second bad attack began three years ago. She entered the Woman's Hospital and stayed 16 months. Plaster casts were

applied, limbs were baked, she was anesthetized and the muscles forcibly stretched by passive motion without improvement. I mention this to show that she has been through all methods of treatment, and was in the most pitiable state; in fact, in such a condition that I hesitated, for I thought her toxic condition would make her a bad surgical risk. At this time she could not move any joint, and was completely helpless; in fact, she had not a joint that was not involved. This condition has been present for the last four years, but it grew worse and worse as time went on. X-ray picture before operation showed a large rectum, circuitous, aberrant sigmoid, causing angulation of descending colon as it passes the crest of the ileum. The splenic flexure was high and transverse colon narrow, and on its hepatic end had an angulation as it approached the flexure. The ascending colon and cecum were dilated. The aberrancy was so great that the cecum and sigmoid were touching, one overlying the other. On account of the X-ray findings, and on account of the apparent helplessness of the case, unless something radical was done, I suggested operation. She went through it very comfortably without shock.

Operation, November 24, 1914.—This went well, done by the same methods as the others, but I noted at the time I was tying off the hepatic flexure that the peritoneum over the duodenum was interfered with, but it did not occur to me that it would interfere with the duodenum. Anastomosis was done and the abdomen closed without drainage. For several days all went well, then vomiting began, and this grew worse and worse. There was no ballooning of the abdomen, no evidence of trouble about the wound, which healed primarily, and there was no apparent infection. With the absence of distention of the abdomen and the wound closing as it did, I inferred this was a duodenal obstruction where the peritoneum had been stripped off, and I felt I could not remedy it. On the eighth day she died from exhaustion from vomiting. I had no means of getting a convincing autopsy, but feel death was due to duodenal obstruction where the peritoneum had been interfered with at the time of removing the hepatic flexure.

CASE V.—Mrs. J. W. A., aged 67, was admitted to my service at St. Joseph's Hospital, May 11, 1915, suffering from pain in her abdomen, occasional vomiting and slight distention of abdomen. Four months ago she began to experience pain and discomfort in the right side, over the region of the appendix, which, however, has gradually grown more pronounced. Three weeks ago she stated that she could see and feel a large mass in her right side, which would grow very large and finally disappear, thus relieving her pain markedly. She consulted her physician, who also thought by abdominal examination he could palpate a lump in the abdomen. X-rays were taken and the doctor's diagnosis verified before she came to the hospital: an obstruction in the ascending colon as it joins the cecum. Absence of the shadow of the cecum due to an annular carcinoma at this point. Upon

entrance into hospital it was noted that her general condition was poor, rather thin, and she had lost considerable weight in last three months. Her chief complaint is a dull pain in abdomen and inability to keep food on her stomach, with marked constipation. The slightest amount of food seems to increase the pain and bring about marked fullness and distention of the abdomen. Bowels have been irregular for the last three months, and during the last 10 days she has had great difficulty in getting movement of bowels. Bladder active; urine shows slight trace of albumin,

otherwise normal. Heart and lungs in good condition.

Operation, May 13, 1915.—Anesthetized with ether; abdomen opened by a vertical incision near midline, extending through upper and lower abdomen, and about 10 or 11 inches in length. Abdomen was explored and a large annular carcinoma of ascending colon, three inches above ileocecal valve, was noted. Also a large, hard carcinoma was noted in the mesenteric attachment near the splenic flexure. Smaller nodules of metastasis were seen through the mesentery of entire colon, extending into the mesentery of the ileum a distance of six or eight inches. Resection was begun eight inches from the ileocecal valve, including the ileum and the metastatic invasion of the mesentery. Blood vessels were ligated independently and separated between ligatures. The ascending, transverse and descending colons were likewise removed in similar manner around to the sigmoid flexure. The end of the ileum was then anastomosed by lateral implantation into side of sigmoid, a pursestring put around the bowel two and a half inches above, and the intestine crushed and tied off with a catgut ligature. The resected portion was incised just distal to the ligature and removed. The stump was then invaginated. pursestring tied, and stump reinforced with a few interrupted mattress stitches of fine silk. The opening in the mesentery behind the anastomosis was then closed with four interrupted silk sutures. A tube was then passed through the anastomotic opening into the small intestines and six ounces of Russian oil (paraffin) were injected and the tube clamped to prevent the oil from escaping. Abdomen closed without drainage. She made an uninterrupted recovery. The wound healed per primam, and she was discharged from the hospital three weeks following operation. No reaction whatever followed the operation, temperature never going above normal during entire convalescence. Bowels moved daily. Russian oil (six ounces) was injected into bowel through tube in rectum daily; tube remained in anastomosis six days. Specimen showed an annular carcinoma (adenocarcinoma) of ascending colon. The lumen of the colon was so strictured that it was almost completely obstructed. The opening was so small that it would admit only the point of a lead pencil. A nodule of carcinoma was also noted in the wall of the colon near splenic flexure, and carcinomatous glands were observed all along the lymphatics in mesentery and along wall of ileum.

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THE NATIONAL BOARD OF MEDICAL EXAMINERS.*

By Louis A. La Garde, Colonel, U. S. A.

THE National Board of Medical Examiners was created and organized by the late Dr. W. L. Rodman, president of the American Medical Association, and his first public announcement of its existence may be found in his presidential address, delivered befor the members of the association at the annual meeting in the city of San Francisco last June. In this address Dr. Rodman stated that the board was conceived to meet a situation which, under our peculiar form of government, results in hardship and embarrassment to those who for various reasons choose to change their location.

He resolved early in his career to lend his time and influence to improve on the method of licensure, which compels a man to be subjected to an examination when moving from one State to another, and he was thus prompted by his own experience when he moved from Louisville, Ky., to Philadelphia, Pa., in about 1896, at which time he was made to stand an examination, during which he wrote his papers sitting at the same table with two students whom he had taught. Not long after this experience he turned his attention to the solution of the problem.

In 1901, at the April meeting of the Committee on National Legislation representing the American Medical Association in the

^{*}Paper read before Baltimore City Medical Society, March 17, 1916.

city of Washington, he outlined his ideas on the composition and the reasons for a central board. In the June 7, 1902, number of the *Philadelphia Medical Journal* there appears a second paper from his pen on "The Proposed National Examining Board." In all of his references to a National Board he sought to utilize the experience of both Federal and civilian members in the scheme of examination.

The need of a standard licensing body for all of the United States and Territories became so apparent that Dr. Rodman, as already stated, proposed a voluntary board, selected from the medical corps of the army, navy and Public Health Service, with other members selected from the Federation of State Examining Boards, and members from the medical profession of the United States.

The principal features in the constitution of the board recently organized are:

(1) The name of this board shall be the National Board of

Medical Examiners.

(2) The domicile of the board shall be Washington, D. C.
(3) The objects of this board are: (a) The establishment of a standard of examination and certification of graduates in medicine, through which the recipient may be recognized for licensure in the practice of medicine in the United States, its Territories and extraterritorial possessions on presentation of the proper credentials of the board. (b) This board is desirous of co-operation with the boards of medical examiners in the individual States, Territories and extraterritorial possessions, by which licensure may be affected through registration of the credentials of this board in the same way that the discretionary powers of a State board affords recognition of the certificate of another licensing board. (c) The examinations are to be conducted by all modern means to accomplish practical, oral and written tests of the candidate's efficiency and qualification.

The personnel of the board at present is as follows:

(1) Dr. I. Wyllis Andrews, Chicago.

(2) Dr. H. D. Arnold, Boston.

- (3) Gen. Rupert Blue, Surgeon-General, Public Health Service.
- (4) Admiral W. C. Braisted, Surgeon-General, U. S. Navy, chairman.
 - (5) Dr. Isadore Dyer, New Orleans.

(6) Dr. Austin Flint, New York.

(7) Gen. W. C. Gorgas, Surgeon-General, U. S. Army.

(8) Dr. Herbert Harlan, Baltimore.

- (9) Col. Louis A. La Garde, U. S. A., treasurer, (10) Dr. W. L. Rodman (lately deceased), secretary.
- (11) W. C. Rucker, Assistant Surgeon-General, Public Health Service.
 - (12) E. R. Stitt, Medical Director, U. S. Navy.
 - (13) Dr. Henry Sewall, Denver, Colo.

(14) Dr. Victor C. Vaughan, Ann Arbor, Mich.

(15) Dr. Louis B. Wilson, Rochester, Minn.

Hereafter the board shall comprise the heads of the Federal services mentioned, with an associate from each service. Three members are to be appointed from the Federation of State Medical Examining Boards and six members from the profession at large.

The board will hold its first examination this fall, the time to be announced later, in the city of Washington, where adequate laboratory facilities, equipment and clinical material have been placed at its disposal. Later, when the number of candidates increases, the examinations will be held in different parts of the

country.

The relation of the State Examining Boards to the National Board of Medical Examiners will be touched upon by the next speaker, Dr. Herbert Harlan, and I will confine myself now briefly to the relation of the Federal services and the way in which we hope that the licentiates of this board are to fit ultimately into the scheme of medico-military preparedness.

The medical corps of the army, navy and Public Health Service are naturally much interested in any step that promotes medical education in this country. The efforts of this board aim at a standard of examination that is unsurpassed, and we believe that its purpose will have the effect to raise the standard of licens-

ing boards to a higher plane.

In some of the old countries, like France and Germany, young men are sent to the army and navy medical schools, in the same way that we send youngsters to West Point and Annapolis in this country. There they are taught the medico-military profession at the expense of the State. In this country we get our recruits for the services out of the medical schools and by a course of intensive training, lasting nine months, and convert them into medico-military experts. In time of war we recruit the official personnel for the medical corps from the profession at large. It is thus seen that the relation of the Federal services to the problem of medical education and to the civilian physician are very intimate. Whatever favors your standard adds to our efficiency. This fact is very apparent to those of us who have been teaching in civil and military medical schools since the Council on Medical Education of the American Medical Association and the Association of Medical Colleges turned their attention to raising the standard of the doctor in this country.

In the licentiate of the National Board the services, and especially the army and navy, recognize a great opportunity to obtain men above the average of attainments for the medical corps and medical reserve corps. General Gorgas has been so impresed by the standard of the licentiate of the National Board that he offers to commission all successful candidates into the medical reserve corps of the army without further mental ex-

amination.

The reserve medical corps is a medium through which we hope for great things, in time of war especially. In the army the recipients of commissions in this corps hold the rank of first lieutenant on the *inactive* list, and when they are called to active duty in war their rank is fixed to correspond to individual worth. We now have 1600 commissioned officers of recognized standing and ability in civil life who are receiving instruction in the summer camps and through the correspondence course at Fort Leavenworth, with a view to teaching them the essentials in the duties of medico-military experts in active campaign.

In a crisis calling for 1,000,000 men to arms the profession would have to furnish at least 10,000 doctors to the army alone. It would probably require 4000 of this number to minister to the sick and wounded. The 6000 remaining would have to perform duty with troops pertaining to sanitation, hygiene, preventive medicine, administration in all that pertains to hospitals, hospital corps and ambulance companies, hospital trains and hospital ships, methods of rendering papers, procuring supplies, keeping records,

etc.

If it were possible to teach the rudiments which pertain to the duties of medico-military experts to at least half of the 6000 referred to, they could promote the efficiency of the Medical Department very materially by assisting the regular and National Guard medical officers in instructing the rest. The work of the Medical Department in keeping up a maximum effective on the fighting line would be very much enhanced, and there would be no danger of a repetition of the breakdown that we experienced in 1898 in the war with Spain.

The value of the licentiate of the National Board of Medical Examiners to the reserve corps of the navy and Public Health Service is just as important to those services, except that they do not require medical officers in such great numbers. The Federal services hail the creation of the National Board as a valuable asset, and it will be appreciated more and more as its certificate becomes recognized. When the services can be supplied with a personnel from the licentiates of such a board, or medical men of like standard, we can warrant that the horrors of war will be

very much lessened.

The obstacles to the establishment of a central board up to the present time have been the want of funds to meet the expenses until the board could become self-supporting. We are again indebted to Dr. Rodman for the solution of this problem. Through his efforts the Carnegie Foundation for the Advancement of Teaching is now providing the necessary funds. Dr. Rodman was proud of the fact that he had been instrumental in organizing such a body. In conversation with his friends he often referred to it as his child, his monument. A few hours before his untimely death, while he was yet in his conscious moments, among his last utterances he referred to his love for and faith in the National Board of Medical Examiners.

Book Reviews.

HABITS THAT HANDICAP. THE MENACE OF OPIUM, ALCOHOL. AND TOBACCO, AND THE REMEDY. By Charles Towns. New York: The Century Company. 1915. Cloth, \$1.20 net.

The recent sensational legislation against the traffic in habitforming drugs has brought to light startling facts about the prevalence of drug addiction among all classes of people, not excluding doctors. Mr. Towns, whose life work is the study and treatment of the victims of these habits, and who is largely responsible for the present legislative campaign, here sums up his experience in regard to the prevalence of drugs, and the methods of treatment and cure; and he extends his discussion also to alcohol and tobacco. It is almost as important, he believes, that the public should be wary about many doctors as about the drugs themselves. That the treatment is not a fake, no more reliable man than Dr. Richard C. Cabot, of Boston, attests. Surely none in the profession would question the integrity of Dr. Cabot. When he then states that he is cognizant with the treatment and attests to its reliability, the profession should be willing to lend an ear to what Mr. Towns has to say. Mr. Towns is firmly convinced that an ounce of prevention is worth a pound of cure, or, employing an Irishism, don't give it. He is also of the opinion that most home cures and sanatoriums are worse than no treatment at all. He claims that his method—and Cabot substantiates him—accomplishes results with the least discomfort to the drug addict. Get the book. Read it, and get a better insight into the hows and whys of the confirmed drug user.

Potter's Compend of Anatomy. Edited by D. Gregg Metheny, M.D., L.R.C.P. and S. (Edin.); L.F.P.S. (Glasgow), associate in anatomy Jefferson Medical College, Philadelphia. Fifth edition, with 139 illustrations. Also numerous tables and 16 plates of the arteries and nerves. Philadelphia: P. Blackiston's Son & Company. 1915. Cloth, \$1 net.

This little book is no more or less than it pretends to be, a quiz compend, but it is an excellent example of its kind. The contents are thoroughly reliable and trustworthy, and can be depended upon for review work for examinations of all kinds. If used in this wise, we can heartily endorse it. Students must remember that quiz compends are too skimpy for a constant diet, only giving the bare details of the subject under discussion. Therefore they should only be used for hasty review work. A most attractive feature is the banishment of embryology, histology and physiology from its pages, which are devoted entirely to gross anatomy. This is as it should be. Those changes in the nomenclature which have come into universal use have been included in the text. As a book of its class it cannot be beaten. Those looking for a condensed work on anatomy will be more than pleased with it.

MARYLAND MEDICAL JOURNAL

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BALTIMORE, OCTOBER, 1916

PERNICIOUS ANEMIA, HEMOLYTIC JAUNDICE AND SPLENIC ANEMIA.

The treatment of the above-mentioned conditions, all more or less associated in pathology and all tending toward a fatal termination, formed the subject of a notable symposium at the Detroit meeting of the American Medical Association, and the papers and discussions are published in full in the *Journal of the American Medical Association* of September 2 and September 9, 1916. The writer was much instructed in listening to this discussion, and he earnestly recommends the careful perusal of the published papers by the medical profession generally.

Pernicious anemia is a not uncommon affection, and it is almost uniformly fatal under the ordinary methods of treatment. Whether it is due to a lessened production of red blood cells by the bone marrow or to an increased destruction of these cells by the liver and spleen the present writer is unable to say. It is a chronic disease usually, and is subject to exacerbations and remissions under any form of treatment, consequently it is difficult to estimate the value of any special therapeutic measures. methods, however, have been employed, either singly or preferably jointly, that offer some hope of cure or of marked amelioration of this disease. These are transfusion of blood and splenectomy. Balfour of the Mayo clinic says that transfusion of blood in small quantities frequently repeated is not only a valuable measure, but is of great prognostic service in foretelling the probable results of splenectomy. If there is decided improvement in the patient's condition after transfusion splenectomy will also be indicated, but if repeated transfusions are not beneficial it is unlikely that splenectomy will accomplish any good result. McClure, formerly of the Halsted Clinic, also strongly advocated repeated

transfusions both before and after splenectomy. It is important to bear in mind that the blood of the donor and of the patient must correspond, and this requires careful tests by competent persons as well as the careful investigation of the donor for acquired or inherited diseases, such as syphilis, tuberculosis and malaria. In regard to splenectomy, Balfour says: "We believe that splenectomy should be considered in every case of pernicious anemia in which the diagnosis has been established and all possible etiologic factors which might be independently remedied have been excluded." Following splenectomy there is almost always temporary improvement. Unfortunately, however, this is usually not maintained, and Krumbhaar of Philadelphia presents statistics showing that of 153 patients operated on, 19.6 per cent, died within six weeks; a distinct improvement occurred in 64.7 per cent., and no improvement in 15.7 per cent. Of the individuals who showed improvement shortly after operation, a large number have failed to maintain their improvement or have since died. Although a few have continued in good condition for more than two years, in no case can it be said that a cure has been effected.

HEMOLYTIC TAUNDICE.

This obscure condition occurs in both a congenital and acquired form. It is an icteric disease not due to obstruction of the biliary passages, though it is sometimes associated with true biliary icterus. The characteristic symptoms are chronic jaundice of varying intensity, associated frequently with anemia of low grade, enlarged spleen, and often enlargement of the liver. Urobilin and urobilinogen are found in the urine, but no bile, unless there is also a true biliary obstruction. The stools are colored and contain bile. There is no pruritus or brachycardia. The patient often goes many years with but little inconvenience, though there is usually lowered resistance and loss of efficiency. From the beneficial effects of the splenectomy it is evident that in some manner the spleen plays an important rôle in this disease. The treatment of this condition, when it becomes necessary to resort to surgical intervention, is splenectomy. Dr. Chas. H. Peck of New York reported three cases of hemolytic jaundice in which the spleen

was removed with most remarkable results. In each case the jaundice began to fade in from three to four days, and had entirely disappeared in ten days. One case, a woman 30 years of age, jaundiced from infancy, was entirely clear in ten days, and has remained so for more than four years. The operative mortality is low. Elliott & Kanavel in 1915 collected in the literature 48 cases, with two deaths and 46 cures. In the Mayo clinic 10 cases have been operated, with one death and nine cures, one case being in good condition eight years after the spleen was removed.

SPLENIC ANEMIA, OR BANTI'S DISEASE.

By splenic anemia is meant a condition of marked destruction of the red cells with enlargement of the spleen often associated with cirrhosis of the liver and in its late stages with ascitis. It is chronic in its course, and may extend over several years before it finally reaches a fatal termination. There is no increase in the leucocytes, and may be an actual decrease, and this at once differentiates it from enlargement of the spleen due to leukemia. There is a tendency to hemorrhages, especially hematemesis and melena. While several diverse conditions may be confused with splenic anemia, such as syphilitic, malarial and other forms of splenomegaly—and these should be excluded by a careful search for the etiologic factor—still the beneficial efforts of splenectomy is apparent in most of these conditions after the failure of the other methods of treatment. In Banti's disease, or splenic anemia, ablation of the spleen is followed by most gratifying results in the earlier stages before hepatic cirrhosis or ascites has set in. Even in the late stages beneficial results are sometimes obtained either by splenectomy alone or combined with omentopexy. In this condition, as in pernicious anemia, blood transfusion is strongly indicated. Giffin reports 33 splenectomies for splenic anemia with uniformly good results. Three cases with cirrhosis and ascitis and two in the pre-ascitic stage of cirrhosis were operated on at the Mayo clinic, and four of the five were restored to normal health. One case with ascitis has remained well for seven years. The mortality of the operation is not prohibitive, and varies from 10 to 20 per cent, in the hands of different operators. Without splenectomy these cases all terminate fatally eventually.

Medical Items.

Dr. Lewis A. Sexton, second assistant superintendent at Johns Hopkins Hospital, who has been acting as admitting physician for the last month, has left with Mrs. Sexton to spend a month's vacation in Alaska and Northwestern Canada. Dr. and Mrs. Sexton will "rough it" during part of the long trip, and will fish and hunt. Dr. Sexton is an expert fisherman as well as a hunter.

An investigation was begun August 25 by the Johns Hopkins Hospital into the causes and spread of infantile paralysis. The research will be conducted by the department of children of the Harriet Lane Home and the department of pathology. Dr. Montrose T. Burrows of the pathological department and Dr. Kenneth D. Blackfan, assistant pediatrician of the Harriet Lane Home, will have charge. A minute record is to be taken of the cases in the city and of the movements of the victims in the weeks previous to developing the paralysis.

Dr. Wm. A. Frontz has been commissioned major in the medical corps of the British Army, and will sail at once to take up the work with the Harvard unit.

Dr. H. H. Biedler, chief surgeon of the Biedler and Sellman Sanitarium, has almost recovered from an illness that confined him to bed at the sanitarium for several weeks.

Dr. E. B. Beasley has been sent to New York by the United States Public Health Service to aid in combating infantile paralysis.

Dr. Wm. R. MacKenzie, a graduate of the College of Physicians and Surgeons, who has for two years worked in the surgical department at Mercy Hospital, left September 4 for Altoona, Pa., to practice medicine. He resigned from the hospital as an interne several days ago.

Congress has recently made an appropriation for 33 additional assistant surgeons in the United States Public Health Service. These officers are commissioned by the President and confirmed by the Senate. The tenure of office is permanent, and successful candidates will immediately receive their commissions.

After four years' service assistant surgeons are entitled to examination for promotion to the grade of past assistant surgeon. Past assistant surgeons after 12 years' service are entitled to examination for promotion to the grade of surgeon.

Assistant surgeons receive \$2000, past assistant surgeons \$2400, surgeons \$3000, senior surgeons, \$3500 and assistant surgeon-generals \$4000 a year. When quarters are not provided, commutation at the rate of \$30, \$40 and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent. in addition to the regular salary for every five years up to 40 per cent. after 20 years' service.

Examinations will be held every month or so in various cities, for the convenience of candidates taking the examination. Further information will be furnished by addressing the Surgeon-General, United States Public Health Service, Washington, D. C.

Dr. Edgar B. Friedenwald, 1616 Linden avenue, who has been serving in the medical reserve corps with the Thirty-sixth Infantry, United States Army, in Texas, since July 4, has returned to his home.

DR. WM. T. FARNEYHOUGH has taken up his duties as medical superintendent of Franklin Square Hospital, succeeding Dr. George D. Snarr, who left for Harrisonburg, Va., where he will engage in private practice.

The Association for the Study of the Internal Secretions has recently been inaugurated with the object of correlating the work of the physicians and other students of this phase of medicine in the different parts of the world. It is expected in this way to advance our present knowledge of this interesting subject.

Announcements of this new association indicate that libraries are to be established and a scientific bulletin published to contain a resume of all the work that is being done in this everbroadening and highly profitable study.

The charter membership includes nearly three hundred physicians in every branch of medical practice and many of those laboratory workers who are delving into the fascinating mysteries of this field. An organizing committee consisting of the following gentlemen is caring for the preliminary work of establishing the association on a firm and useful basis: Dr. Lewellys F. Barker, Baltimore; Dr. Judson Daland, Philadelphia; Dr. L. R. DeBuys, New Orleans; Dr. Emil Goetsch, Baltimore; Dr. George H. Hoxie, Kansas City; Dr. John B. Potts, Omaha, and Dr. Henry R. Harrower, Glendale, Los Angeles, Cal., secretary.

This association desires those who have contributed articles pertaining to one phase or another of the study of the internal secretions to send six copies of each of their reprints to Dr. Harrower. These will be catalogued, cross-

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THE MODERN METHOD OF TREATMENT OF DISEASES OF THE STOMACH.*+

By Julius Friedenwald, M.D.,

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When your secretary requested me to present a paper on "The Modern Method of Treatment of Diseases of the Stomach from the Standpoint of the General Practitioner" to your Association, I consented with some reluctance, for I at once recognized the difficult task set before me. The treatment of any disease, especially of the stomach, presupposes a thorough knowledge of the disease at hand, and this is not always a simple matter, for a correct diagnosis is often most difficult, and at times impossible. The treatment follows the diagnosis directly, and most of our therapeutic failures are due to inaccurate diagnoses. It is therefore of the utmost importance to examine all of our patients affected with gastric disorders most thoroughly, and to exercise every precaution to reach correct diagnoses. It is only under these conditions that the treatment may be so instituted as to prove most effective, and of the greatest benefit to the patient.

The specialty of gastroenterology really dates as far back as the beginning of the eighteenth century, when the stomach-tube first saw the light of day. There has been much discussion as to the priority of the discovery of the stomach-tube, and the view has been generally accepted that this instrument is of English origin, and that the two English surgeons, Jukes and Bush, are its inventors. This claim is based on an article by Jukes in the London Medical Repository of 1822. He here described an elastic tube one-quarter of an inch in diameter and two and a half feet in length, terminating at one extremity in a small globe of ivory with several perforations, the other extremity being adapted either by screw or plugs to an elastic bottle of sufficient size to contain at least a quart of liquid, and having a stopcock fitted to it.

^{*}Read by invitation at the meeting of the York County Medical Society (Pennsylvania), November 4, 1915.
†Reprinted from the *Therapeutic Gazette*, February 15, 1916.

Instead of the bottle a syringe of an equal capacity could be adapted in the same manner to the flexible tube.

Some years ago, in looking over some old medical volumes, my attention was attracted to the fact that the credit of this discovery is due to Dr. Physick, who published his original paper October, 1812, in "The Electric Repertory," Vol. III, page iii, under the title of "Account of a New Mode of Extracting Poisonous Substances from the Stomach, by Philip S. Physick, M.D., Professor of Surgery in the University of Pennsylvania," which is ten years prior to the appearance of Juke's article. He declares that he employed the tube in washing the stomach of twins three months old who had accidentally been given an overdose of laudanum by their mother. He employed a large catherer for this purpose. One of the children was saved, the other died. Physick states that the idea of washing out the stomach with a syringe and tube in cases in which quantities of laudanum or other poisons had been swallowed occurred to him at least twelve years before, and he had constantly for many years recommended it in his lectures. In the year 1809 his nephew, Dr. Dorsey, practiced lavage in a case, but the patient had swallowed the poison twelve hours before he was called, so that he did not succeed in saving life. But the tube was soon forgotten, and was not generally employed until after 1869, when Kussmaul suggested its use in the treat-

ment of gastric dilatation.

No one who is especially interested in the treatment of diseases of the stomach should fail to read that most important article, "Uber die Behandlung der Magenerweiterung durch eine neue Methode mittest die Magenpumpe," by Kussmaul, in the Deutsches Archiv für klinische Medicin in 1869, in which a most ingenious method of treatment laid the foundation for an exact mode of diagnosis in gastric disturbances. In this valuable paper Kussmaul tells of the difficulties besetting the treatment in advanced forms of dilatation of the stomach due to narrowing and closure of the pylorus. "Very exceptionally was it possible to obtain any results in the treatment of this dreadful disease. As a rule it may hardly be possible ever to expect an amelioration of the symptoms, and never possible to produce a cure." Kussmaul, who was director of the Freiburg Medical Clinic, was rather reluctant in admitting to his clinic a country girl, Marie Weiner, twenty years of age, who had been troubled with gastric disturbances for eleven years, and in whom he found a typical example of dilatation of the stomach, produced by stricture at the pylorus due to ulcer. The patient was very pale and emaciated, and so weak as to be unable to leave her bed; she suffered greatly from vomiting of extremely large quantities; from gastric pain, sleeplessness, and attacks of tetany, and was relieved of her suffering only by means of morphine. Kussmaul says: "Often when I observed the patient in the wretched prodromal stage of vomiting the thought had occurred to me that I might relieve her suffering by the employment of the stomach-pump, as the removal of large

masses of decomposed acid gastric contents should cause relief from agonizing burning and retching at once. The introduction of the sound could be performed without difficulty, for where a gastric dilatation has existed for so long a period of time the esophagus is usualy dilated. The artificial emptying of the stomach by the pump could be no more painful or distressing than the condition existing before and during vomiting; at any rate, its effect would be more rapid and complete than the emptying of the stomach by means of vomiting, with its prolonged prodromal stage of nausea, pain, and retching. Often, even after vomiting, palpation and percussion indicated that the stomach still contained considerable masses of contents. This condition reminded me of the so-called ischuria paradoxa, in which large amounts of urine flow daily from the dilated bladder without its actually emptying itself and without reducing its size. By means of the pump it is possible to empty the stomach completely, and, if its elastic and contractile powers have not been entirely lost, perhaps even give to it the tone to contract to a certain degree, as the catheter occa-

sionally brings about recovery in ischuria paradoxa.

"In our patient the gastric dilatation was occasioned by stricture at the pylorus. At the post-mortem examination of cases of extreme gastric dilatation I have repeatedly found that the stenosis which was present would still admit the passage of a small finger from the stomach into the duodenum, although there had appeared to be complete closure of the pylorus towards the end of life. In such cases I had at times observed at the bedside through the abdominal walls active movements of the stomach. It appeared to me as though the excessive distention, the filling and overloading of the stomach itself, produced a mechanical action which increased the constriction of the pylorus to complete closure. I was desirous of removing this condition by emptying the stomach and decreasing its size. Finally, it appeared to me that the use of the stomach-pump would permit a more thorough treatment of the diseased gastric mucous membrane than was ever before accomplished. In the case of our patient this had for 2½ years been constantly irritated by extremely acid contents. The stomach-pump would not only make it possible completely to evacuate these acid acrid masses, but would permit the washing and cleaning of the diseased mucous membrane, which had been irritated by acids with alkaline fluids, as with Vichy water or with an artificial soda solution. The introduction of the stomach-tube, the pumping out, and washing with Vichy water were usually easy. We withdrew three liters of acid, dirty-gray, sarcina-containing fluid, with particles of food of all kinds undergoing softening and decomposition." This was first accomplished on July 22, 1867.

Although most enthusiastic over this new method of treatment, Kussmaul realized its limitations. He recognized that only where slight constriction of the pylorus existed was he able to cure cases of dilatation of the stomach by lavage. In cases of malignant

stenosis of the pylorus and marked cicatrical contraction relief only could be afforded, and not cure. He says: "Naturally, it is impossible to expect a cure of a dilated stomach by means of lavage when the pyloric orifice is narrowed to such an extent that it will hardly admit even as much as a goose quill." It is here that Kussmaul points out the possibility that surgery may at some future day bring relief to these cases, and it is possible, as Fleiner suggests, that perhaps it may have been the inspiration of this remark that led Billroth at a not very distant date to attempt to cure incurable forms of gastric disease by surgical measures. Thus a new method of treatment, this epoch-making work of the great master Kussmaul, furnished the impetus for the study of gastric diseases according to modern scientific methods and led to the stomach-tube, not only as a new method of treatment, but also of diagnosis.

A year later (1870) Jurgenson pointed out the disadvantage of the stomach-pump, as recommended by Kussmaul. The pump is difficult to cleanse, and, in fact, its use is superfluous. Jurgensen here introduces the principle of siphonage into the practice of gastric lavage, which entirely eliminates the use of the pump in this form of treatment. The soft-rubber tube is also here recommended, and Jurgensen fully explains the method of introduction of the stomach-tube, the position to be assumed by the patient, as well as of practicing the siphonage in freeing the stomach of its contents. This contribution must be classed as an advance in the therapeutics of gastric diseases. Jurgensen utilized the rubber tube terminating in a perforated ivory bulb. The bulb was guided by means of wire stylet. Four years later (1875) Ewald called attention to the fact that any rubber tubing having sufficient resistance could be introduced into the stomach without the use of a guide.

While Kussmaul drew attention to the therapeutic value of the stomach-tube, it remained for Leube, at the Rostock Naturforscher Versammlung, in 1871, to point to the value of the stomach-tube

as a diagnostic measure.

Twelve years later (1883) Leube established his test meal as a means of determining that a normal stomach should be empty seven hours after the ingestion of a meal of water, soup, steak and bread. It was not long after (1883) that Leube developed his well-known scale of the digestibility of various foods, which he earnestly advocated as a means of diet in the treatment of ulcer of the stomach. He divided the various foodstuffs, according to their digestability, into four classes. This work is most valuable, pointing as it does to the importance of diet in gastric diseases, and marked an advancement in the therapeutics of diseases of the stomach.

From this time on the stomach-tube has been generally utilized, not only for diagnostic, but also for therapeutic purposes, and many modifications of this instrument have been devised. As with all other therapeutic measures, when employed without

proper indications, the use of the tube has often been abused, and on this account has often fallen into disfavor, for lavage has frequently been practiced as a last resort, often after all other therapeutic measures have failed, and without proper indications. The therapeutic indications for lavage are definite. This procedure should be practiced for the removal of decomposing foods and excessive secretions in cases of dilatation due to pyloric or duodenal obstruction, and in cases of fermentation, as is observed in chronic gastritis and in cancer; for the removal of mucus in chronic gastritis, and of excessive acid secretion. It is a most useful and life-saving procedure for the quick extraction of poisons which have been swallowed, as well as in removing the intestinal regurgitations occurring in obstructions of the bowels. In other conditions its use may at times prove beneficial; it then acts often only as a suggestive measure.

Among the modifications of the tube occasionally employed are the gastric douche, gastric spray, and powder-blower. The douche is used for treatment of the mucous membrane of the stomach. It consists of a tube with small-sized apertures, through which a fine stream flows, stimulating the mucous membrane; the fluid employed may consist of Vichy water or a bitter tonic, such as

quassia, calumba, etc.

The spray of Einhorn is utilized for the instillation of small quantities of fluid into the stomach. The fluid introduced is usually a solution of nitrate of silver (.1-.2 per cent.), which is employed in certain forms of chronic gastritis and in hypersecretion. Another apparatus of some importance introduced by Einhorn is the intragastric electrode used to apply electricity directly into the stomach.

Usually the intraventricular application of electricity is more beneficial than the extraventricular. The faradic current is especially useful in cases of gastric atony, and in some forms of gastric neuroses. The galvanic current is beneficial in painful gastric conditions, such as in gastralgias and pylorospasm.

DIET IN DISEASES OF THE STOMACH.

In diseases of the stomach the selection of a proper diet is often of more importance than the choice of drugs. No absolute dietetic regulations can be formulated in this class of diseases, but it is important to regulate the food in conformity with the particular disease with which the patient is affected, and also to consider the individual tastes and peculiarities of the patient. Even in the regulation of a diet in any special disease of the stomach, changes are often rendered necessary. These must be made gradually and according to the patient's powers to digest the food.

Food is said to be easily digestible when it produces no gastrointestinal discomfort, is passed from the stomach into the intestine at a normal rate of speed, and is easily absorbed. Under normal conditions the digestibility of foods is easily ascertained, for the functions of the stomach being normal, the effect of the food upon the functions can readily be determined; in the various gastric disturbances, however, this problem is more difficult. In determining the diet for a special gastric disturbance two points must be borne in mind: first, the power to increase the nutrition of the patient; and, secondly, the necessity of giving food in a digestible form so as to lessen the work of the stomach. It must be borne in mind that the digestibility of food varies widely with the individual taste, for no matter how digestible a food may be, if it is unpalatable it will not be digested properly. In general it may be said, first, that in acute conditions the food should be of such a character that the stomach should be spared as much work as possible; second, in chronic disturbances it is important to supply sufficient quantities of nourishment in an easily digestible form, so as to maintain the body weight so far as possible. In determining the quantity of food that is necessary during 24 hours, the amount is estimated in calories of heat. As is well known, a human being at rest requires 35 calories per kilo of weight, whereas while he is performing light work he requires 40 calories. In order, therefore, to determine the exact amount of nourishment, it is only necessary to know the weight of the individual. Inasmuch as the proteins can be replaced in a measure by the carbohydrates and fats, an interchange of any of these three food elements can be made according to the patient's condition. When the weight of the person is known, it is an easy matter to determine whether the amount of nourishment given is sufficient to maintain the body weight.

It is well also to weigh every patient suffering with a stomach disorder when treatment is first inaugurated, and to repeat this from time to time, in order to determine whether the patient is

gaining or losing flesh.

The diet must be considered from the standpoint of the gastric secretion; there may exist, on the one hand, the condition of over-secretion of acid, and, on the other, lessened secretion or absence of acid.

In cases of oversecretion an abundant protein diet is indicated, inasmuch as the excess of hydrochloric acid is neutralized by this class of foods. Ordinarily, the proteins that are best adapted for patients suffering from oversecretion of acid are the red meats and eggs, whereas the carbohydrates must be given in the most easily

digested form.

In cases in which there is a diminution of the gastric secretion the protein foods are digested with difficulty, whereas the carbohydrates are more easily digested. In this condition, therefore, only very tender meats, preferably scraped, are to be given; whereas such easily digestible vegetables as spinach, mashed potatoes and farinaceous foods may be eaten in quite large quanties. In both conditions of increased and diminished secretion of acid a reasonable amount of fat must be eaten, preferably in the form of good butter. The diet in muscular disturbances of the stomach depends greatly upon whether an excess or a deficiency of gastric juice is secreted; if there is an increase, an excess in protein food gives the best results; if, on the other hand, there is a diminution of this secretion, protein food must be given the patient in the most easily digestible form. The carbohydrates and the lighter vegetables may be given in somewhat larger proportion. In both conditions the ingestion of fluids should be reduced as far as possible. Normally, the appetite is a fair indication of the number of calories of heat that may be required: in conditions of gastric disorder, however, this is not the case; these patients lose their appetite, and consequently often take insufficient food. In those instances in which the gastric disorder is somewhat protracted and accompanied by great loss of weight, and in which the patient takes insufficient nourishment, it need only be remembered that such a patient resting quietly in bed requires quite a number less of calories than a patient who is not resting. This plan is therefore often taken advantage of in the treatment of many patients suffering from disorders of the stomach.

SPECIAL FACTORS BEARING ON THE DIET IN PATIENTS SUFFERING FROM GASTRIC DISTURBANCES.

- I. Von Noorden demonstrated the fact that the intestine will vicariously perform the work of the stomach in conditions in which the secretion of the latter is lost. The point to be borne in mind is that even in cases in which the secretion of the stomach is lost entirely, the intestine may assume this function of the stomach.
- 2. In those cases in which it is necessary to spare the stomach, as when food cannot be digested or is vomited, either predigested foods may be utilized or foods may be administered through channels other than the stomach.
 - 3. The following rules for eating should be carried out:
- (a) Food should be thoroughly masticated; this is especially important in those cases in which there are marked gastric disturbances.
- (b) The meals should be taken at regular intervals and in moderate quantities, according to the nature of the gastric disease.
- (c) The temperature of the food is also an important factor in the treatment of gastric disturbances; as Uffelmann has pointed out, the food should be taken at a temperature between 98° and 100° F. The ingestion of very hot food is believed to be a frequent cause of ulcer, and, as Mayo has recently pointed out, a factor in the production of cancer of the stomach. On the other hand, Wegele attributes the dyspepsia of many Americans to the taking of ice-cold water and other cold drinks.
- (d) The question of rest or exercise after eating is one that is of considerable importance to those suffering from gastric disturb-

ances. It is generally admitted that violent exercise should not be indulged in after eating.

From my own observations, it appears that in conditions of gastric disturbances accompanied by increased or decreased acidity, and in muscular disturbances of the stomach, the gastric digestion is improved during rest, but impaired by sleep after meals.

Among the special forms of treatment recommended in gastric disturbances may be mentioned the rest cure, first devised by Weir Mitchell. This treatment is especially useful in cases of nervous stomach disorders. It is also useful in the treatment of ulcer. gastritis and other conditions. The rest treatment in gastric disorders should be carried out for a period of from six to eight weeks. The patient should be confined to bed a large part of this time and given a varied diet, food being supplied every two to three hours. Boas advises that instead of the large quantities of milk usually prescribed, the patient will do better if given ½ to I liter of cream daily in portions of 150 to 200 cc. In addition to the protein food he advises a diet rich in carbohydrates and fats. Constipation may be overcome in most instances by the addition of such foods as honey, preserves, buttermilk, kumiss The results that follow this plan of treatment are often marvelous. In referring to the question of diet, I cannot pass by this subject without touching upon the question of the use of Bulgarian buttermilk, of recent introduction in America, but long used in the Orient. The importance of this form of milk. and its high nutritive value, was first recognized by the Bulgarian physician, Grigoroff, and more recently by the French physicians. It contains three forms of bacteria, the most important one being the bulgaricus, causing the acidulation of the milk. The organism produces a fermentation of the sugars and causes the coagulation of the milk, forming lactic acid. The Bulgarian buttermilk is exceedingly digestible, due to the fact that its casein and ablumin are rendered soluble. Metchnikoff ascribes a life-prolonging effect to this milk, due to the fact that in Bulgaria, where this form of milk is employed as a regular article of diet, there are many individuals above 100 years of age.

There can be no question but that the decomposition effect in the intestine is favorably affected by the Bulgarian milk. Tablets containing the Bulgarian bacilli are detailed by various pharmaceutical establishments and have been highly recommended. Another food employed in recent years to a very large extent in the treatment of gastric disorders is olive oil. This substance has been most satisfactorily used in the treatment of ulcer and other gastric disorders, and is of great value both as a food and as a

remedy.

In this connection I must call your attention to an oil recommended in the last few years by Lane—paraffin oil, a mineral oil, which is now very largely employed with most beneficial results in the treatment of intestinal stasis. This oil is not a food, however, as it passes unchanged through the intestinal tract.

Certain advances have been made in the medical treatment of ulcer of the stomach in the past few years. According to the older plan, the Leube treatment was almost constantly followed. This consists of placing the patient at complete rest in bed for 14 days or more, upon liquid diet, mainly of milk. Upon such a diet the patient frequently loses much flesh as well as strength.

On this account Lenhartz cautions against the strict abstinence diet in the treatment of ulcer of the stomach, even in those instances in which there is hemorrhage. He bases his conclusions on the fact that since ulcer of the stomach is most frequently accompanied by superacidity and also by an enfeebled condition, it is best to give protein food early to overcome the acidity as well as to build up the system.

In the Lenhartz cure, absolute rest in bed for at least four weeks is maintained. An ice-bag is placed on the abdomen, and left on more or less continually for two weeks. On the first day, even though there be hematemesis, 200 cc. of iced milk are given in teaspoonful doses, together with two raw, ice-cold, beaten-up

eggs.

The eggs are beaten up with sugar, and they are kept cold by placing the cup containing them in a dish filled with ice. The milk is increased every day 100 grammes, and one additional egg added; on the ninth day the patient is given I liter of milk, and the quantity is not increased; on the sixth day raw scraped beef is added, and the quantity is doubled on the following day; on the seventh and eighth days the patient is given some well-cooked rice and zwieback (softened); and on the tenth day raw ham and butter.

Only recently Sippy has evolved a method of treating peptic ulcer which seems likely to replace all other methods of treatment. The treatment consists in protecting the ulcer from the acid corrosion until it has healed, by shielding it from the corrosive effect

of the gastric secretion.

He accomplishes this by maintaining a neutralization of all free HCl from early in the morning until late at night. This is effected by frequent feedings and the use of alkalies given frequently. The patient remains in bed for three to four weeks. Three ounces of a mixture of equal parts of milk and cream are given every hour from 7 A. M. to 7 P. M. After two or three days soft eggs and well-cooked cereals are gradually added until in vo days the patient receives three ounces of milk and cream mixture every hour, three soft-boiled eggs and nine ounces of a cereal each day. Cream soups of various kinds, vegetable purées, and other soft foods may be substituted now and then as desired. Powders of magnesia and soda and bismuth and soda are given between the feedings to neutralize the acid secretion. The details of the treat-

ment can be found in a recent number of the Journal of the American Medical Association.

I have been employing this method in the treatment of a large number of cases of peptic ulcer with most gratifying results.

Of the greatest importance in the treatment of certain cases of ulcer is the method devised by Einhorn, known as duodenal alimentation. By means of this method food can be introduced directly into the duodenum. The instrument employed consists of a small capsule perforated and attached to a long rubber tube, at the other end of which a syringe can be applied. The tube is swallowed while drinking water, and the instrument soon passes into the stomach, and within an hour or two into the duodenum. Care should be taken to see that it is in place before the feeding is started. This may be done by gentle traction, which shows a slight resistance if the tube is in the duodenum; by aspiration, which will often bring up golden-yellow duodenal juice without any gastric secretion; or, perhaps best, by giving the patient some liquid to drink by mouth and immediately performing aspiration. If the end of the tube is in the stomach, the fluid can be removed. Any liquid food may be employed, but mixtures of milk-sugar and raw eggs are the most useful. Care should be taken to see that there are no particles in the food that might clog the tube. The amount at the beginning should be small, 100 cc, every two hours, beginning early in the morning and stopping late in the evening. This quantity may be gradually increased up to 300 cc. If eight feedings are given in 24 hours and each feeding consists of 280 cc. of milk, one egg and one tablespoonful of sugar of milk, the patient will receive approximately 2280 calories, which is ample for an average individual, and if the patient is at rest in bed it is sufficient to allow a gain in weight.

Einhorn has perfected a special syringe, with which it is possible to administer the food without disconnecting the tube. Morgan has suggested a method like that of Murphy for giving salt solution per recturm, permitting the fluid to flow from an irrigating jar, and so arranging the pet-cock that the food is taken slowly, the 300 cc. of nourishment taking about 25 minutes. The food should be administered at body temperature and the heating should be done slowly, for if if becomes too hot it is liable to become thick and lumpy. After heating, it is well to strain the food to be certain to have it free from small particles. If the food is used too warm or too cold it is apt to cause uncomfortable symptoms, sometimes causing the patient considerable shock; a too rapid administration causes flatulence. After each feeding a syringeful of water at 98° F. should be injected, then the pet-cock closed and the syringe filled with air, which should be injected after the petcock has been opened; the pet-cock should then be closed and the syringe disconnected. This procedure is very important, and serves to keep the tube clean and empty.

Of the many remedies employed in the treatment of the various

gastric disorders there is one of unusual importance, as it appears to have an almost specific effect in certain condition. The drug is ¹ atropine, which by depressing the vagus fibers decreases the secretory and motor functions of the stomach. Through the researches of Eppinger and Hess, the theory has been advanced that disturbances of the autonomic nervous system (which includes all of the efferent nerve fibers outside of the cerebrospinal axis excepting those supplying the voluntary muscles) lead to increased and decreased tonus or excitability, and that through this system the activity of the glands of internal secretion are regulated and controlled. According to this theory, therefore, a gastric ulcer may have as its underlying basis an increased vago-tonus, and atropine by depressing this vagus excitability decreases the possibility of gastric irritation. Clinically it has frequently been noted that healing has been effected in obstinate cases of gastric ulcers when patients were systematically treated with atropine or belladonna.

A word might be said concerning the administration of hydrochloric acid, which has been always regarded as an efficient remedy in the treatment of certain forms of gastritis. It is a well-known fact that when taken internally hydrocloric acid has the power to stimulate the secretion of the gastric ferments. This is occasioned by the action of the acid on the pylorus, producing a secretion which when absorbed again stimulates the gastric secretion. It is also well known that when hydrochloric acid is administered it directly stimulates the gastric secretion of hydrochloric acid of the diseased gastric mucous membrane, and also awakens in the gastric mucous membrane the power to produce further acid on the ingestion of food. Hydrocloric acid is best administered after food by giving small doses at 10, 15, 20 and 30 minutes later, thus in a way imitating the natural process of digestion. The proper digestion of food cannot be obtained from hydrocloric acid alone; pepsin must be present at the same time.

Up to a comparatively recent period it was generally held that the administration of pepsin was needless, for it was assumed that the minute quantities needed for proteolysis were present in the stomach. However, it is now known that in order to procure good gastric digestion it is necessary to have both the hydrochloric acid and pepsin thoroughly mixed. This is not thoroughly accomplished when hydrochloric acid is given alone, and pepsin should be administered at the same time; it is also quite useless to prescribe pepsin alone. Hydrochloric acid aids the intestinal digestion, inasmuch as proteids which have been acted on by hydrocloric acid and pepsin are much more easily digested by trypsin; in addition this acid acts upon some precursor in the duodenum producing an intestinal secretion, which, being absorbed, stimulates the flow of the pancreatic secretion.

MECHANICAL SUPPORTS.

I must call attention briefly to the mechanical therapeutics, consisting mainly of the abdominal support in the treatment of

enteroptosis. This apparatus is employed in supplying a support to the relaxed abdominal wall and in holding the organs as far as possible in position. The beneficial effect of this apparatus is effected by relieving the symptoms arising from the pressure of the abdominal organs. The supports consist of bandages and corsets. The number of apparatus of this character is almost innumerable, almost every specialist having a bandage or corset furnished to conform with his own views. It is not always a simple matter, however, to supply a well-fitting bandage or corset. In a stout individual with a pendulous abdomen this is not usually a difficult matter, but in thin individuals there is often great difficulty in adjusting a support which actually holds the organs in proper position.

The need of a support is quickly indicated by means of the Glénard's belt sign. One stands back of the patient, passing one's arms on either side with both hands on the lower abdominal walls. The abdominal flesh can easily be elevated; by suddenly dropping the hands the abdominal mass may be allowed to fall. If the symptoms have been relieved by the support of the hands and return by their removal, there is every indication for the need

of an abdominal support or corset.

MINERAL-WATER CURES.

Mineral-water cures have been utilized for many years in the treatment of certain gastric disorders, and yet notwithstanding the fact that these cures are among our oldest methods of treatment, we know but little regarding their actual physiological effect. Our knowledge concerning their action is wholly empirical and their use must therefore be entirely based on purely clinical evidence. It is well known that the effect of the water is far better when taken at the springs. This may be partly due to the fact that the beneficial effect is augmented by the healthful surroundings, freedom from care, the rest and diet. The fact that many of these waters, as has been recently discovered, are radioactive may also account in a measure for their beneficial effect, and inasmuch as this radioactivity is largely lost in transportation, for their failure in giving relief when taken away from the springs.

INDICATIONS FOR SURGICAL INTERVENTION.

One cannot pass by the question of the treatment of gastric disorders without at least alluding to a few facts regarding the

surgical aspect of these conditions.

The newer surgery of the stomach was introduced with Billroth's successful pyloric resection for cancer, and Wölfler's gastroenterostomy in 1881. Since that time there has been a steady advancement in the results of surgery, many so brilliant that operation has often been undertaken as a cure for all forms of indigestion; the results of which have often been dismal failures, increasing rather than relieving the patient's discomfort. At the

same time indiscriminate surgery has had a distinctly harmful effect in the advancement of surgery of the stomach. However, when the indications for surgical intervention are present, the results of surgery are most brilliant and gratifying.

The indications for operation on the stomach are as follows:

1. Obstructions, whether at the cardiac or pyloric orifices. Gastrostomy is indicated in impermeable strictures of the cardiac orifice or of the esophagus, and gives great relief until the stricture can be dilated; it prolongs life in cases of carcinoma of this region. Operation is always indicated in obstruction of the pylorus, whether the obstruction be due to simple pyloric stenosis or due to cancer. In cases of benign obstruction, the operation indicated are pyloroplasty, gastroenterostomy or pylorectomy; in malignant disease pylorectomy is indicated for cure and gastroenterostomy for relief.

2. Gastric ulcer. Simple uncomplicated gastric or duodenal ulcers do not require operation. Operation must only be considered when there are complications or when the ulcer has resisted

a thorough medical cure.

The indications for operation are perforation, pyloric obstruction and ulcers defying thorough medical cures. The surgical procedures which may be undertaken are excision of the ulcer, pylorectomy, pyloroplasty or gastroenterostomy. The exact procedure to be followed must be determined by the surgeon at the time of the operation.

3. Gastric carcinoma. There is but one cure for cancer of the stomach, and that is operation. This can be accomplished only, however, when the diagnosis is made early. Inasmuch as early diagnosis is usually most difficult and often impossible, it is wise to urge upon all individuals over 40 years of age who manifest symptoms of indigestion which are not relieved by a few weeks of treatment the need of a most critical examination, and if the diagnosis still remains doubtful, of exploratory incision. It is by this method alone that cases of carcinoma of the stomach can be determined early, and at that stage when cure is still possible; otherwise the operation can only be in the nature of relief—gastroenterostomy for relief of obstruction—but not of cure.

I have outlined as far as it is possible in this brief period of time the modern method of treatment of the diseases of the stomach, and I must again emphasize what I attempted to point out at the beginning of this paper, namely, that the treatment is exceedingly simple if the diagnosis be correctly made. It behooves us, therefore, to study our cases most carefully and critically, so that we may become confident, as far as it is possible, of the correctness of our diagnosis; the treatment follows the diagnosis directly, and can therefore easily be outlined. It is only in this manner that we can secure the very best results.

THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.*

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For more than a century rheumatism has been a mother to all the aches and pains of the human body which could not be otherwise classified. In the past decade, owing to our ability to better diagnose diseases, she has had torn mercilessly from her many of the diseases that were once thrust upon her without a protest. Today we view her with a feeling of pity in her last and farewell fight against medical science, knowing full well that in a few more years she will have passed to her reward and her remaining family more intelligently classified.

Alfred Mantle in 1887 was the first man to offer the germ theory of rheumatism, and as a result he was almost laughed out of the profession, but, like many other great men, it was necessary for many years to elapse before his real greatness was appreciated.

Authorities agree that acute articular rheumatism, or infectious arthritis, is an infectious disease, due to one or more specific organisms, and particularly those belonging to the streptococcic specie.

In order not to make this paper too lengthy, I have confined myself to that form of rheumatism due to the above-mentioned germs. These organisms are most frequently found in the tonsils, diseased teeth and nasal sinuses; less frequently in the gall bladder, appendix and kidneys. "Why these particular germs should behave in any such manner, which is very different from their natural activities, is best explained by the modification they undergo as a result of their residence, repeated reproduction in and passage through the tissue in which they were originally lodged, which affords them prolonged periods of incubation and supply the very conditions which would be most likely to produce modification of their primary characteristics and virulence."

Every person suffering with acute articular rheumatism has somewhere within his body a depot that is constantly sending out through the circulation quantities of germs to reinforce those being destroyed. Our first step when called to treat one of these cases should be to try to locate the point of original infection. In making this examination we should be very thorough and exacting, because the success of our treatment depends entirely on our finding the focus. Do not allow any person's denial of venereal infection or his social or religious affiliation to influence you.

Medicine is a help in treating this disease; diet is very important,

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baths and other remedies to make the patient comfortable are all very useful, but they must be considered of secondary importance in the cure of this disease. It has long been the custom to treat these cases with salicylates. This idea originated many years ago, when the disease was thought to be due to faulty metabolism and uric and lactic acids were supposed to play prominent part in its production. We were taught until a few years ago that these drugs would prevent the many complications that accompany rheumatism, and a few men still believe this. I want to state that I do not believe they will do it. The salicylates will relieve the pain of infectious arthritis, will reduce the fever, and also aid in the elimination of the toxins produced by these germs by increasing the activity of the liver and kidney cells, but they will not cure it nor will they prevent any complication.

In support of this claim regarding the action of this drug, I wish to report to you a series of experiments conducted by Dr. David John Davis of Chicago and reported in the *Archives of Internal Medicine*, in which a number of rabbits were inoculated with the serum taken from the joint of a patient suffering from acute rheumatism. Some of the rabbits were given five-grain doses of salicylate of soda previous to and a dose each day following the inoculation, while an equal number were given nothing at all. In each series those that had the salicylate had more complications at death and died sooner than the ones that

had no treatment.

The increased activity of the liver and kidneys following the administration of this drug is due to the fact that it acts as an irritant to them. In practically every case of endocarditis coming on during the attack of rheumatism in a patient taking the salicy-lates in full dose the complication developed during the height of the treatment.

Since this has been proven to be an infectious disease, due to specific organisms, it would seem that an autogenous vaccine made from the particular strain of bacteria causing these symptoms would, indeed, afford us an ideal treatment, but unfortunately in practice the results are not always so gratifying as the laboratory man would make us believe. No one, unless he be well trained in laboratory methods and surgical technique, is competent to secure an uncontaminated culture in the average case, even though he has isolated his focus. This, I believe, is the cause of more failures with the autogenous vaccine than anything else; therefore the many difficulties in the way of obtaining these, owing to the inaccessibility of the original focus and the great danger of entering the affected joint, make them most impractical, if not impossible, in treating this disease, so far as the general practitioner is concerned. It is, therefore, my desire in presenting this subject, to call your attention to the value of the stock vaccines. Theoretically these preparations are inferior to the autogenous form, but practical demonstrations show them to be the equal, if

not superior. The fact that they require no special technique nor skill and symptoms can be controlled and many of the complications prevented before the autogenous vaccine is available is a

very distinct advantage that must be considered.

My experience has been mostly with the phylacogens. I do not claim that they are any better than some others on the market. The fact that I have used them so long and better understand their administration probably accounts for the better results. Still, in consideration of the results that have already been obtained, I feel that the treatment of infectious diseases with vaccines is merely in its infancy. We as general practitioners are the ones who see the cases, and it is up to us to help develop this branch of medicine. The medical men in larger cities who have numerous assistants in the laboratories do not use stock vaccine. because it is not necessary. We cannot, therefore, expect aid from them, but if we will only work hard and faithfully in a few more years we will be able to buy on the market biological preparations just as accurate and as scientific as can be made. In treating an infectious arthritis the phylacogen seems to do all that could be expected. They will give you such beautiful and rapid results that I often wonder how any man could longer entertain doubts about their action.

I have had failures in using them, but in every instance have been able to prove that the cause of failure was due not to the phylacogen, but to my error in diagnosis. Now, in doubtful cases I always use them, knowing that if I fail to get results, it is very

probable that the case is not one of infectious arthritis.

Recently I had under my care a physician's son with the following history: At the age of six years had a severe attack of acute articular rheumatism, which lasted for eight weeks. He had complete relief for three years, then he developed it again in both knees and hips. This had existed and been treated for three years. At times his knees would swell to double their normal size; his suffering was intense, and would at times be confined to bed for weeks. His tonsils had been removed one year before. with no benefit whatever. For the three past winters he had spent about half the time in bed, but during the warm weather would improve. His urine was perfectly normal. I gave him rheumatism phylacogen for some time with no improvement whatever. In fact, I believe he was worse afterwards than before he took the treatment. I had his blood examined one day, and, much to my surprise, it was reported full of malarial organisms. This boy had never had a chill nor shown any other symptoms of this disease. He soon got well under proper treatment.

I mention this case to demonstrate to you how very careful we must be in making a diagnosis of rheumatism, and how very painstaking we should be in locating the causative factor. No man is justified nor should he ever be willing to discard a remedy that offers relief to a suffering patient simply because he has failed to get results, while many others have succeeded. Under such circumstances it is better, I believe, to place the blame, not on the

remedy, but where it belongs.

Another thing we have discovered in a great many cases is that in addition to the general reaction following the administration of a dose of phylacogen there is also a distinct local reaction, and this oftentimes is a very valuable aid in obscure cases in defi-

nitely locating the original point of infection.

Practically all physicians look at the tonsils the first thing when called to treat one of these cases, and if they are at all enlarged, advise their removal, which, as a general rule, is correct, but it is best not to be too sure in promising the patient relief, because oftentimes the obvious focus may not be the specific one. While the tonsils may be filled with pus and should be removed, still this infection may be secondary to an unrecognized pus pocket about the root of a tooth, a condition which could only be disclosed by an X-ray.

There has been a great deal written as to the proper time to operate or remove this focus, and the authorities do not agree on this subject because of the danger of increasing the symptoms already present. A great many advise waiting until the rheumatic symptoms have partially subsided or reached subacute stage. Recently I have seen two cases operated upon in which the results

were anything but satisfactory.

Case No. 1. A young man, 20 years old, who had an acute attack of rheumatism following a severe case of tonsillitis. He was treated for about four weeks, when he was sent to the hospital for a tonsillectomy. At that time he was suffering very little and was able to walk around everywhere; three days after the operation he went home, feeling well; a few days later he developed a worse attack of rheumatism than he had ever had before

and was unable to get out of bed for almost three months.

Case No. 2. Young boy, II years old, gave history of a mild attack of rheumatism four years previous. When I saw him this time he had been sick for two weeks; several joints were more or less swollen, but he was able to be up and around the house. His heart was not affected. I found his tonsils and the glands in his neck much enlarged. Had his tonsils removed the next day. I watched him for three days and all of his symptoms were improving rapidly. I was called back to see him the seventh day and found him suffering more than he had ever been, with nearly all of the joints affected. It was with difficulty that he could be turned in bed, and, much to my surprise, he had then a wellmarked endocarditis. I started him on rheumatism phylacogen, and in five days he was entirely free from pain and has remained so. After six weeks in bed on account of his heart, I am glad to say there is only a slight murmur, nor does exertion affect his heart. I have hopes that this boy will grow up to manhood and not be a cripple. It was the beautiful result obtained in this case by the use of phylacogen that caused me to adopt a different method of treatment. I will report two cases illustrating the treatment we now use.

Case No. 1. This lady had one child, three months old. No previous attacks of rheumatism. When I first saw her she gave a history of sore throat one month before, which was followed in a few days with pains in her joints, which grew steadily worse in spite of treatment with various medicines until she was confined to her bed most of the time. She could not wear shoes and had to carry her right arm on a pillow. I brought her to the hospital in an ambulance and started her on rheumatism phylacogen, increasing the dose each day. On the fourth day she was entirely free from pain. On the fifth day I had her tonsils removed, and they were full of pus. Two hours before she went on the operating table I gave her another large dose and kept the treatment up for several days afterwards. She made an uneventful recovery and never had a pain afterwards. This could hardly be called a coincidence, when you consider her symptoms beforehand and see the amount of pus in the tonsils as compared with the two cases mentioned above.

Case No. 2. Little girl, age nine years. Had an acute attack of rheumatism following tonsillitis. She was confined to her bed for several days before phylacogen was given. After four days' treatment her tonsils were removed and the treatment continued as in the above case. She had no return of symptoms afterwards.

This, as you see, makes another distinct advantage in favor of stock vaccines, because you prepared your patient's blood with the anti-bodies to destroy these germs and toxins before they are turned loose into the general circulation, which is always done in making the autogenous form, and it's during the time you are waiting on the laboratory people that you will get many heart complications.

ADMINISTRATION.

It is hardly necessary for me to dwell on the technique of administering this vaccine, except to say that you should always use a sterile glass syringe. I believe pure alcohol is sufficient, if for any reason you cannot boil your syringe. Site.—This, in adults, is the best in the arms. Always give it subcutaneously, and never in a muscle. It may be given in a vein, but never give the initial dose that way. The subcutaneous and subareolar tissue seem to possess an unusual power of producing anti-bodies, while if the injection is made into a muscle there is a great deal more pain, greater reaction and probably a lessened anti-body formation, as muscle tissue does not seem to possess the same power observed in the subcutaneous tissue. Intravenous injections are not only dangerous and do not possess any more, but may give a lessened anti-body production; at the same time there is found an occasional case that will not respond to the subcutaneous injection, but will improve rapidly when the phylacogen is given into a vein.

This is a fact well proven, but not understood. If you are dealing with an acute infection due to virulent germs, it is better to give a small dose first and repeat in 12 to 24 hours, gradually increasing the amount. In chronic conditions, the initial dose should be larger and the interval between doses should be from two to six days.

Book Reviews.

Preparedness. The Nation's Armament. The Doctor's Armamentarium. Jersey City: Reed & Carnrick.

The well-known and highly-respected pharmaceutical firm of Reed & Carnrick have just issued a little monograph on the subject at present uppermost in the mind of every American citizen, namely, preparedness in its broader aspects. Such pamphlets as this are bound to add to the education of the populace of the necessity of being prepared against war. It calls not only attention to the purely military aspects of the subject and the mobilizing of all the forces which must be called into service in case of war, but also the economic factors which play an extremely important role in effecting a successful outcome. It emphasizes that as important as the purely military side of preparedness is, equally so is the economic side. It is a booklet that every citizen of the United States should read, as it deals with a question which must be decided by the nation either for or against, and the decision cannot long be developed, as halfway measures will not suffice. The firm is to be congratulated on its progressiveism in endeavoring to do in their small way something toward making preparedness an actuality.

Harvey's Views on the Use of the Circulation of the Blood. By John G. Curtis, M.D., LL.D. Formerly Professor of Physiology in Columbia University, in the City of New York. Based on a lecture delivered in 1907 before the Johns Hopkins Hospital Historical Club at Baltimore. New York: The Columbia University Press. 1915. Cloth, \$1.50 net.

This work of Dr. Curtis represents a very profound study of Harvey's ideas, and comparison of them with those of the most important of Harvey's predecessors. Though much remains for us to learn before the science of physiology has been completely mastered, and though one thoroughly realizes the difficulty incident to the proving of each new discovery, one can hardly comprehend the difficulties which beset Harvey until one reads the book of Dr. Curtis. The ancients had only the slightest conception of physiology, and it was not until Harvey published his observations that physiology began a rational existence. Har-

vev's greatest contribution to the medical sciences was the discovery of the circulation; but he also speculated much concerning other problems of physiology: namely, the cause of the heartbeat; what produces the bodily heat, etc. Harvey's publications first put physiology upon a sound basis, and was the beginning of physiology as we know it today. Though he failed in establishing the proper reason for many of the problems which confronted him, modern physiology is indebted to him more than most of us today realize. The little secrets which he wrung laboriously out of nature were the foundations upon which his successors builded so magnificently, and it is as a reminder of the debt of gratitude that physiologists owe Harvey that the abovementioned book principally impresses us. It is well in these days of utilitarianism to stop and pause and be brought back occasionally to a realization of our indebtedness to past generations. Physiology, as all the other sciences, was brought to its present state of perfection by the zealous efforts of a host of self-sacrificing scientists. This thought constantly pops up as one reads Curtis' exposition of Harvey's contributions on the circulation of the blood.

Painless Childbirth, Eutocia and Nitrous Oxid-Oxygen Analgesia. By Dr. Carl Henry Davis, Associate in Obstetrics and Gynecology, Rush Medical College, in Affiliation with the University of Chicago; Assistant Attending Obstetrician and Gynecologist to the Presbyterian Hospital, Chicago. Cloth, \$1.00 net. Chicago: Forbes and Company. 1916.

Childbirth should be made as comfortable as consistent with the interest of the mother and child. Any suggestions which tend to accomplish this event is indeed not only of interest to the profession, but also to the laity. Certainly any book which attempts to thoroughly discuss the various methods of securing painless childbirth is novel. This distinction belongs to Davis' book. Recognizing the need of relieving pain in many cases of childbirth, also that the twilight sleep is not without serious limitations, Dr. Davis offers a method which should receive the serious attention of every physician engaged in midwifery; namely, the nitrous oxid-oxygen combination. In his hands this method has worked admirably, and as a result of his experience and belief in its efficacy he now offers a detailed account of the manner in which he has employed it. More and more nitrous oxidoxygen is coming into favor as a general anesthetic, and there is no reason why it should not be employed to alleviate the pangs of childbirth. It has proven its utility in the hands of Davis; we believe the future will find it more generally employed. It is much safer than the other means by which pain is controlled; consequently, when the way of administering it is better understood, will find more and more employment. Every physician should, at any rate, acquaint himself with the contents of the

above-mentioned book; in doing so he will quicken his interest in midwifery. When the profession comes to a realization that more women die in the United States in a year from puerperal sepsis than from tuberculosis one will only then appreciate the importance of such books as Davis'.

A Synopsis of Medical Treatment. By George Cheever Shattuck, M.D., Assistant Physician to the Massachusetts General Hospital. Second Edition, Revised and Enlarged. Boston: W. M. Leonard. 1915. Price, \$1.25.

Surely the methods of treatment applied in the Massachusetts General Hospital cannot help but be instructive to the medical man wherever located. What adds to the value of the book is the brevity with which the author lets one into the secrets of the treatment of such conditions as cardiac insufficiency, nephritis, acute infectious diseases, as applied at the Massachusetts General Hospital. In every instance the treatment suggested, even if not approved by the reader, is sound. Besides, they have been given the iron test of fire and have not been found wanting. Exhibiting the qualities of brevity, clearness and soundness, it should prove as desirable to the general practitioner as ever.

Bone-Graft Surgery. By Fred H. Albee, A.B., M.D., F.A. C.S., Professor of Orthopedic Surgery at the New York Post-Graduate Medical School and the University of Vermont; Visiting Orthopedic Surgeon to the New York Post-Graduate Hospital and Blythedale Hospital; Consulting Orthopedic Surgeon to the Mary Fletcher Hospital, Burlington, Vermont; Sea View Hospital, New York; Muhlenburg Hospital, Plainfield, New Jersey, and Waterbury Hospital, Waterbury, Conn.; Member of the American Orthopedic Association; Corresponding Member of the German Orthopedic Association, etc. With 332 illustrations, three of them in colors. Philadelphia and London: W. B. Saunders Company. 1915. Baltimore: The Medical Standard Book Company. Cloth, \$6. Half Morocco, \$7.50 net.

Surgeons by this time are all aware of the important work being done by Doctor Albee in bone-grafting, but, heretofore, his contributions have been so scattered that it is with more or less difficulty that one has been able to reach them when desired. This has now been obviated by the appearance of his views under the above caption. Starting out with the fundamental principles underlying the use of the bone graft in surgery the author then launches into the technic of the methods in bone grafting which have proven most efficacious in his hands and the conditions calling forth bone grafting. Bone grafting is based on the principle that cellular elements under favorable conditions are capable of retaining their viability after being detached from the living

organism. This viability varies with the individual tissue, as the higher the development of the cell and the richer the tissus is in blood vessels the less likely is it to survive. Therefore, the most favorable tissues for grafting purposes are the simpler connective tissues, such as bone, fat, fascia, etc., which are endowed with the capacity of extracting nutrition from the soil into which they are planted and at the same time are able to regenerate so that the portion of the graft which disintegrates is replaced. Bone has been successfully transplanted since 1809, when Merrem obtained successfully healing of bone plates in the skulls of animals after trephining. Autogenous grafts are by far the most trustworthy. With primary union and in the absence of infection, autogenous grafts, properly contracted, are always successful. and even infection does not necessarily indicate failure. vegetative capacity of the bone cell is as great as that of the epithelial cell. We are of the same opinion of the writer, that the exact histological role which the bone graft plays is, fortunately, immaterial to its clinical usefulness, whether it serves as an osteoconductive scaffold or as an active osteogenetic force. The book opens with a thorough discussion of the underlying principles necessary for successful bone grafting, then passes on to the bone graft in Pott's disease, and other lesions of the spine, the inlay bone graft in the operative treatment of fractures, the inlay bone graft for fixation of tuberculous knee-joints, etc., etc. It is an admirable treatise on a comparatively new subject, fully illustrated and full of helpful suggestions. Every progressive physician should not be satisfied until he possesses a copy of this book.

International Clinics. A Quarterly. Edited by H. R. M. Landis, M.D., Philadelphia. Volume I. Twenty-sixth Series. Philadelphia and London: J. B. Lippincott Company. Cloth, \$2 net. 1916.

We note a change in the editorship of International Clinics, and from the appearance of this issue bespeak for the present editor as great success as that enjoyed by his predecessor. Herein are a number of articles devoted to medicine, neurology, public health, diagnosis, pathology and general surgery. Each and every one has been especially selected for the class of readers which International Clinics reaches. There are a few well-chosen words on chorea, including a new treatment, drug therapy in cardio-vascular diseases, pellagra, the wounded mind, the relation of the practicing physician to public health administration and the registration of birth and deaths, prolapse of the genital organs in women, the management of inevitable abortion, the non-operative treatment of fractures of the long bones, etc., all of which articles should prove intensely useful to general practitioners of medicine in enabling them to keep abreast of modern medical thought.

MARYLAND MEDICAL JOURNAL

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BALTIMORE, NOVEMBER, 1916

ANTERIOR POLIOMYELITIS.

In the January issue, 1911, of this JOURNAL this subject was treated editorially, and at that time we called attention to the fact that Flexner and Lewis in the United States, Roemer in Germany, Leiner and Wiesner in Austria, Landsteiner and Levaditi in Paris, and others, had thoroughly demonstrated the infectious nature of this trouble. We also called attention to Bryant's observations, which led him to believe that this disease was not only infectious but also contagious, and that the contagion emanates from the naso-pharyngeal secretions. Since this time, in 1913, Wickman's report of the Swedish epidemic of 1905 showed that acute polyiomyelitis was conveyed from person to person, and he indicated that healthy persons may act as carriers.

Flexner in the American Medical Journal of July 22, 1916, has very clearly summed up our present knowledge concerning this disease and drawn certain deductions of practical importance, and it would appear to us at the present time, although the spread of the disease seems to be on the wane, that some of his conclusions and deductions are extremely pertinent, in view of the fact that there are always with us some cases of this disease. As the result of his investigations he has come to the conclusion, and this conclusion is confirmed by many other investigators of this subject, that this disease is caused by a minute filterable micro-organism, which has now been secured in artificial culture and which is distinctly visible under the higher powers of the microscope. That this micro-organism invades the brain and spinal cord, meninges,

lymph glands, mucous membranes of the nose and throat, the gastro-intestinal tract, and less frequently other internal organs, but up to the present time it has not been detected in the general circulating blood.

The micro-organism of this disease is found almost constantly in the excretions of the naso-pharynx and in the stools of individuals suffering with the disease, and in the stools of many of those who have been in intimate contact with cases of anterior poliomyelitis; it escapes from the body in the secretions of the nose, throat and intestines; it survives in the dark and dim daylight; is resistant to moderate heat, cold, drying and the weaker chemicals which kill other bacteria, but is rapidly killed by bright sunlight and hydrogen peroxide. The infected naso-pharyngeal secretions and intestinal discharges, by becoming dry and being converted into dust, may be widely spread and become a serious source of infection.

It has also been shown that the ordinary domestic fly may become contaminated with the virus contained in the excretions of the body, remain infective for 48 hours or longer, and thus serve as an agent for the transportation of the organisms, either directly to persons or by contaminating food or clothing. Insects seem to be excluded as active agents in the dissemination of the disease, but may very readily act as mechanical carriers of the micro-organism of poliomyelitis.

The most usual method of conveyance seems to be by human beings. This may include individuals who are ill with the disease; who have recovered from the disease or who have been in attendance or in close contact with affected persons. As there may occur many mild cases and abortive forms, it is almost impossible to tell how numerous this source of contamination may be in any epidemic. It is also a fact that these apparently healthy carriers rarely themselves fall ill of the disease. The disease may also be conveyed by flies, and possibly other insects, which become contaminated with the virus and act as mechanical carriers. Food, clothing, etc., may also be contaminated and convey the disease.

At the present time it would, therefore, appear as if the microorganism is conveyed either directly or indirectly from a source of infection to a susceptible individual where it comes in contact with the naso-pharyngeal mucous membranes; that the organism grows in this situation, enters the central nervous system and is further disseminated, very likely through the lymphatic system; that it causes pathological changes to take place which vary in extent and severity in different individuals and in different epidemics. In some individuals there are comparatively few symptoms and practically no paralysis; in others meningeal symptoms seem to predominate; in others cerebral; in some bulbar, but in the largest number spinal. In some epidemics the greater number of cases seem to run a mild course with a very little mortality; whereas in others the course is more severe and the mortality is as high as 20 or 25 per cent.

It seems to be the concensus of opinion at the preesnt time that the spread of this disease may be prevented by strict isolation of those affected with the illness and those who come in contact with or care for infected individuals; exercising the greatest care to prevent the dissemination of the excretions of the nose and throat and intestines, as these excretions seem to be the principal source of infection. As insects may be among the possible mechanical carriers of this disease, it is also necessary to prevent insects from gaining access to these excretions, and to exclude flies and other insects from homes and food.

DEATH OF DR. LOUIS McLANE TIFFANY.

As we go to press we are startled by the announcement of the death of Dr. Tiffany, which occurred suddenly on the morning of October 23 at his summer home in Accomac county, Virginia. He had not been in good health for some years, but was able to go around and to indulge in moderate exercise. He spent the past summer in the North, and only recently returned to his home in the city for a few days. Leaving Baltimore about two weeks ago, he anticipated a pleasant sojourn in the country during the autumn. We are informed that he was feeling exceptionally well on the day before his death and was preparing to go fishing the next morning. About 5 o'clock in the morning he was seized with a severe pain in the heart, and soon expired. Dr. Tiffany was an eminent surgeon, whose surgical achievements procured for him both a national and international fame. Although he had retired from the practice of his profession, he was held in high esteem by his medical brethren, and his death will bring sorrow to many friends and former patients.

Medical Items.

A LIMITED number of physicians is required for steamers plying between here and England and the Mediterranean. If interested, communicate with Furness, Withy & Co., Newport News, Va.

The meeting of the Baltimore City Medical Society was held on Saturday, October 21, at 1211 Cathedral street. Dr. E. A. Codman of Boston, Mass., delivered an address on "Hospital Organization and the Following-up System," and Dr. T. S. Cullen of Baltimore delivered an address on "The Making of Books."

THE members of the Society of Clinical Surgeons met in Baltimore on Friday and Saturday, October 20 and 21. The organization comprises 40 of the most prominent surgeons of America.

GOVERNOR HARRINGTON has reappointed Dr. Hedley V. Carter and Dr. Howard M. Houck members of the State Board of Osteopathic Examiners. They are to serve three more years.

Dr. J. S. Johnson was also appointed as a member of the board to serve two years to fill the unexpired term of Dr. R. J. Northern. Both are of Hagerstown.

Dr. Fred Rankin, University of Maryland, '09, has been appointed to a fellowship in surgery under the Mayo Foundation of the University of Minnesota, and will enter upon service at the Mayo Clinic, Rochester, Minnesota, on November 1.

Dr. J. Hubert Wade, Boonsboro, has been appointed a member of the Penal Board of Maryland by the Governor. This board has control of the House of Correction and the Maryland Penitentiary.

Dr. Henry Lee Smith of the Medical Reserve Corps, United States Army, who has been on duty as medical examiner in the mobilization can're at Mt. Gretna, Pa., since July, has been appointed camp surgeon.

Dr. James J. Mills, instructor in eye surgery at the Johns Hopkins Hospital, has finished a special assignment for the French Government at Biarritz, and will return to this country in a few weeks. He has spent the past six weeks treating the wounded eyes of French soldiers.

Dr. AND Mrs. RICHARD GUNDRY of Catonsville spent part of the month of October motoring in the Virginia Valley. Dr. Alfred W. Brown, medical supervisor of the Public Athletic League, Baltimore, has resigned, and will later enter the practice of medicine in British Columbia.

Dr. AND Mrs. J. B. Sebastian, who have spent the last two years in the West, have returned to Baltimore. The doctor will resume the practice of his profession.

Dr. W. A. B. Sellman of 5 E. Biddle street attended the meeting of the American Association of Gynecologists and Obstetricians at Indianapolis.

Drs. F. P. Weltner and E. F. Gott, graduates of the College of Physicians and Surgeons, and former internes of Mercy Hospital, have left Baltimore for Bluefield, W. Va., where they will jointly practice medicine. Dr. Gott has specialized in surgery and Dr. Weltner will devote himself largely to treating diseases of children.

Dr. Allen K. Krause, who will direct the tuberculosis dispensary at Johns Hopkins Hospital, has arrived and taken up his work. Dr. Krause has had charge at the Trudeau Sanitarium, Saranac, N. Y. The tuberculosis work here was provided for by a fund given by Kenneth Dows of New York city.

Dr. And Mrs. Hugh Brent are receiving congratulations on the birth of a son on Monday, October 2, who will be named Hugh Brent Fourth. Dr. and Mrs. Brent, the latter formerly Miss Helen Vogeler, are living at 2124 Maryland avenue.

The next meeting of the Southern Medical Association will be held in Atlanta, Ga., on November 13 to 16, inclusive. The outstanding feature of the meeting will be the clinics every morning from 2 to 10 by visiting clinicians, men from different Southern cities. The officers of this association are Dr. Robert Wilson, Jr., of Charleston, S. C., president; Dr. Holman Taylor, Fort Worth, Tex., first vice-president; Dr. Guy L. Hunner of Baltimore, second vice-president, and Dr. Seale Harris of Birmingham, Ala., secretary and treasurer.

Dr. and Mrs. Gideon Timberlake are occupying the apartment they have leased at the Carlton, on University Parkway.

Dr. Wm. H. Welch, Baltimore, professor of pathology at the Johns Hopkins Hospital University, has returned from Europe, where he went early in the summer to make an inspection of some of the most noted European hospitals in order to secure data for the new school

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EDUCATION AND HEALTH.

By John T. King, M.D.

THE more a physician sees of disease with its restless misery, its pathetic anguish and hopeless despair, the more frequently as he turns away from the bedside does he feel like exclaiming how easily might this suffering and distress have been avoided. Besides, he tires of always looking on the sickly side of life, having written on its face expiations for sin and ignorance; not unnaturally does he yearn not to look forever on ruins, or broken or defaced columns, but on the beauty of perfect contour, on the majesty of strength, and the bewitching charm of perfect proportions.

The individual is almost helpless in guarding himself against preventable yet dangerous diseases. His health, his life and the lives of those he holds most dear, often literally depend on what those around him may do. In new and sparsely-settled countries, having slow and difficult means of communication, the life of one person is seldom endangered by the sanitary fault of others. But the situation is wholly changed in densely-populated regions with easy and rapid modes of modern intercommunication; so when a person cannot protect his own life against conditions arising from others, it would seem to be the exact sphere of the Government to afford him such protection. Is this done in our day in an enlightened and effectual manner? Are not our lawmakers satisfied in granting power to municipal bodies, and, as it usually turns out, through ward politicians to take optional action in reference to a matter involving the health or sickness, the life or death of the people? As might be expected under such potentates, the measures adopted are lame and ineffectual. What else could be anticipated of a law which relegates such a difficult and important trust to such jurisdictors, men with very small capacity for imbibing sanitary knowledge.

A man's house is said to be his castle; he does in it as he lists, and he will do as all prudent men do—so arrange its interior that the health of those domiciled in it shall not thereby be endangered.

Do those who have control of our public schools show a similar degree of prudence, so that those who make a temporary stay in them shall not suffer in health? The wisdom of learned lawmakers frequently does not rise on this point to the same altitude in conserving health as that of the humbler citizen. Persons of ordinary observation may well know that the teachers and pupils of our schools are often severely ill on account of the bad air, bad ventilation, overcrowding and faulty modes of warming our school buildings. The State virtually assumes the role of parent to our children for many years. In doing so it is often less careful than the considerate parent. Is it not a notorious truth that nearly every scholar, particularly girls, grows paler, thinner and weaker than ordinary. The State assumes the educational charge of its youth for a number of years. It takes the execution of this most important trust out of the hands of the parents, dictates directly how much breathing space your child and mine shall have, how well or ill the rooms where they are kept shall be warmed, lighted and ventilated; how many hours each day they shall be closely confined, how cramped and motionless they shall sit, how much or little out-of-doors exercise they shall have, and last but not least, what they shall study and how long and severe the mental strain shall be. Men are put in charge of these affairs not because they are highly enlightened on educational topics, but because they are good republicans or strong democrats. The educational charge of your child and mine being thus taken out of our hands by the State, is it asking too much that the physical and mental health be carefully guarded? There is scarcely a parent, and no urban physician, who is not cognizant of instances in which steady attendance at school seriously injures the health, giving rise to debility, headaches and damaged nervous systems which endure for time. If such a thing should happen through a State law in reference to raising young animals, do you imagine it would abide? Let us consider this matter more attentively. The brain is the organ of the mind and the grand center from which flows all nervous energy. It is the slowest and latest of all organs in the body in reaching mature development, and is at the same time more susceptible to hurtful influences than any other part. Like other organs of the body, a judicious amount of exercise during the period of growth enhances its vigor, but too much stunts and deforms it. Put a boy while in rapid growth to light and varied exercise, and his system at large is benefited. On the other hand. put him to severe and constant manual labor, and its development becomes heavy, clumsy, defective and misshapen. Farmers have the good sense to know that hard work injures the growth, beauty. strength and endurance of young horses, but they apparently never imagine that hard work has the same effect on their boys and girls. In this it may literally be said of them they have poor human sense, but excellent horse sense. The tender brain, the organ of the mind, is so very carefully protected and hidden away from sight by provident nature that its damaged and stunted condition from overwork in the schoolroom cannot be seen, but it may be easily discerned through the functional performances in after life. The picture which came under my observation is familiar to every practitioner of medicine. Does this look familiar to you? An anxious mother brought her daughter to the office with the following history: My daughter from being a bright, rosy girl, happy all the day, has become pale, peevish, with loss of appetite, wakeful nights, disturbed vision, stooped shoulders—in short, has developed evidences of some severe malady.

"Now Doctor," said this mother, "give her some strong tonic to bring her right up, as we want her back to school as soon as possible, for she stands at the head of her class." It was evident that long hours at school, close application to books at home, lack of proper hours for sleep and recreation, and, worst of all, the spurring on of a jaded body and mind by the desire to retain her class standing and final reward, were fast undermining her constitution.

A second picture: The principal of one of our schools addressed a note to the head of a family which I attend, stating that his daughter, my patient, had strange nervous attacks at school. This note was endorsed by the patient and sent to me for my information and guidance. Upon inquiry I learned that this young lady was often compelled to remain up until after midnight at hard work in order to hold her class standing, and on rising in the morning suffered loss of appetite, and would go to school without breaking her fast. She was fretful, nervous, easily frightened or moved to tears, had terrible headaches, disturbed sleep, and, though not very thin, was pale and anemic.

Talk to me of medicine in such cases! It is folly to rely upon it. In the strongest terms I could command I pointed out to the fond parents, proud of their daughter's distinction, the great folly and danger of their course, and urged upon them as the only safe procedure to give special attention to her physical culture, and opened their eyes to the fact that their children were dying of overschooling.

Professor Huxley says the effect of overtaxing the brain during the period of its growth physiologically stated is this: "The cerebral vital energy provided for perfecting its growth and development is used up in exhausting toil and for the purpose of vain display." I cannot better enforce this point than by quoting the following from this great thinker: "The educational abomination of the present day is the stimulation of the young people to work at high pressure by constant competitive examinations."

Some wise man, who evidently was not an early riser, has said of early risers in general that they are conceited all the forenoon and stupid all the afternoon. Now, whether this is true of early risers, in the common acceptation of the word, or not, I will not pretend to say; but it is too often true of unhappy children who are forced to rise early in their classes. They are conceited all the forenoon of life and stupid all its afternoon. The vigor and freshness which should have been stored up for the purposes of

the hard struggle for existence and practical life have been washed out of them by precocious mental debauchery, by book gluttony and lesson-bibbing. Their faculties are worn out by the strain put upon their callow brains, and they are demoralized by worthless childish triumph before the real work of life begins. I have no compassion for sloth, but youth has more need of intellectual rest than age, and the cheerfulness, the tenacity of purpose, the power of work which made many a successful man what he is, must be placed to the credit not of his hours of industry, but to that of hours of idleness in boyhood.

True, a large number of children with good constitutions bear the school brain strain with less disastrous results. It may only aid them in acquiring a tendency to nervousness, or, in other words, to the neurotic temperament. American schools have drawn no little attention and admiration from European observers for the thoroughness of their drill and the advanced scholarship of those scarcely well in their teens. Bright, brilliant, and to a large degree wonderful is this premature blooming of the mind. But, like all hothouse forcing systems, the outcome is sadly disappointing; it is sickly, soon fades away, and is very unproductive. The marked increase of the neurotic temperament may be everywhere discerned by a little attention. Compare for yourself the calm, athletic, firm-nerved father, who gained his education under the loose system of the log schoolhouse, with his highly educated son, trained under the new-fangled brain forcing system, and it will be apparent that the son has a much more restless, fugacious eye, a more nervous, quick and impatient manner, that he is to a marked degree thinner, paler and more irritable than his father. Such a system, in place of fitting, unfits anyone for a strong and prolonged struggle in the great battle of life with all its fierce and bitter competitions.

In no small degree for such reasons it is observed that the boy hurried along by the emulating school drill, noted for his precocity, is seldom the one who attains to eminence in after life. I believe we all endorse the sentiments of Herbert Spencer when he says: "There is a given order in which and a given rate at which the faculties unfold." If the course of education conforms itself to that order and rate, well. If not, the higher faculties are early taxed by presenting an order of knowledge more complex and abstract than can be readily assimilated, or if by excess of culture the intellect in general is developed to a degree beyond that which is natural to the age, the abnormal result so produced will inevitably be compared by some equivalent or more than equivalent evil. For Nature is a strict accountant; and if you demand of her in one direction more than she is prepared to lay out, she balances the account by making a deduction elsewhere. Supposing the overactivity of the brain not to be extreme, but to exceed the normal activity only in a moderate degree, there will be nothing more than some slight reaction on the development of the body. When the excess of mental exertion is greater there follow results

more serious, telling not only against bodily perfection, but against

the perfection of the brain itself.

But these results of overeducation, disastrous as they are, are perhaps less disastrous than the results upon the health, the undermined constitution, the enfeebled energies, the morbid feelings. Recent discoveries in physiology have shown how immense is the influence of the brain over the functions of the body. The digestion of the food, the circulation of the blood, and through these all other organic processes, are profoundly affected by cerebral excitement. Whoever has seen repeated the experiment first performed by Weber, showing the consequence of irritating the vagus nerve, which connects the brain with the viscera; whoever has seen the action of the heart suddenly arrested by the irritation of this nerve, slowing, recommencing when the irritation is suspended, and again arrested the moment it is renewed, will have a vivid conception of the depressing influence which an overwrought brain exercises on the body. And if, as all who candidly investigate the matter must admit, physical degeneracy is a consequence of excessive study, how great is the condemnation to be passed upon this cramming system above exemplified. It is a terrible mistake in so far as the mere acquiring of knowledge is concerned, for it is notorious that the mind, like the body, cannot assimilate beyond a certain rate, and if you ply it with facts faster than it can assimilate them they are very soon rejected again; they do not become permanently built into the intellectual fabric. It is a mistake, too, because it tends to make study distasteful, it often generates an aversion to books, and instead of a subsequent selfculture induced by rational education, there comes a continued retrogression.

It is a mistake, also, inasmuch as it assumes that the acquisition of knowledge is everything, and forgets that a much more impor-

tant matter is the organization of knowledge.

But the mistake is still deeper, as it is fatal to the vigor of physique, for success in the world depends more on energy than on information. Once more the system is a mistake as involving a false estimate of welfare in life. Even supposing it were a means of worldly success instead of a means of worldly failure, yet, in the entailed ill-health, it would inflict a more than equivalent curse. What boots it to have attained wealth if the wealth is accompanied by ceaseless ailments?

On women the effects of this forcing system are, if possible, even more injurious than on men. In the pale, angular, flatchested young ladies we see the effects of merciless application, unrelieved by youthful sports, and this physical degeneracy exhibited by them hinders their welfare far more than their many accomplishments aid it. Men care comparatively little for erudition in women, but very much for physical beauty and good nature and common sense. What man ever fell in love with a woman because she understood Italian? Where is the Edwin who was brought to Angelina's feet by her German? But rosy cheeks and laughing eyes are great attractions. A finely rounded figure draws admiring glances. The liveliness and good humor that overflowing health produces go a great way towards establishing attachments. If any think the assertion a derogatory one and inveigh against the masculine character for being thus swayed, we reply that they little know what they say when they call in question the divine ordinations.

This paper has already exceeded the bounds I had prescribed for it, so I cannot enlarge on details as to the means by which the sanitary supervision of schools would prevent the restraints and requirements of the schoolroom from stunting the physical development of pupils, lowering the general standard of health, injuring the eyesight, crooking the brain as well as the back, and weakening the whole nervous system for life. Suffice it to say, the plan would involve the selection of sites for buildings, the dimensions, warming, lighting and ventilation of rooms, the number and division of hours devoted respectively to study and recreation, the careful inquiry concerning special predispositions to disease among the children, especially of the nervous system, and when needful, enjoining special rules not simply to avoid its intensification, but to facilitate its removal.

Shall the physician after having accomplished so much for the alleviation and prevention of human suffering, and with an encouraging prospect, retire within himself and say to the populace, they are joined to their idols; let them alone. Nav. God forbid! Rather let sanitarians labor on in their thankless work, hoping that little by little the rays of light may penetrate the popular mind. We might truthfully say that already we may rejoice in the evidences of light in the east which we believe will overspread the sky. A tremendous development of physical education has recently taken place in the form of the playground movement and all that it implies and in the beneficent reaction upon the old, stilted, fatiguing, isolated and unnatural formal gymnastics. The play movement is largely in the private and voluntary stage of development, but there is one school with which I am familiar which requires the "three M's" before the door is opened to any applicant, viz., examination Mentally, Morally and Medically, and later, after careful observation, vocationally. The older methods of sentencing growing children for many years to sedentary book reading in stationary seats are beginning to give way before the newer way of play in the open air, hide and seek among the trees, ball games, and aquatic sports and winter games.

THE TREATMENT OF EPILEPSY

By William Held, M.D., Chicago, Ill.

It's dangerous to wake the lion; Destructive are the tiger's fangs; But the horror of all horrors Is man gone mad.

THOSE who are interested in epilepsy and who have a clear insight into the unhappy conditions existing in the home where an epileptic lives will hardly believe it possible that any new woe could be added to the cup of sorrow already overflowing. Yet

such seems to be the case now.

There comes a Cincinnati physician and announces that epilepsy is due to a germ (which he thought he had discovered) and that contact with the blood of an epileptic can communicate the dread disease to others. Those who have given credence to these statements, which were widely circulated by the press, have unnecessarily added to their burden.

It is the purpose of this article to allay unwarranted fear and make known the facts regarding epilepsy in the light of our pres-

ent-day knowledge.

If the belief in the communicability of epilepsy were allowed to continue, people would witness an attack with still greater horror and terror than is the case now; epileptics would be shunned like lepers and left to their own misery without anyone daring to extend a helping hand.

It is a most dangerous suggestion which thus was instilled into the minds of the many thousands who either directly or indirectly are concerned with epileptics, and the more deplorable as it is without scientific basis, without truth, and merely built upon coin-

cidents of flimsy fabric.

The communicability of epilepsy by contact with the patient's blood is a myth; it has been positively disproved by the exact

methods of the laboratory.

The germ theory heralded by the Cincinnati doctor as a new discovery is also a matter of past history and recognized by epileptographers as an old acquaintance of something like twenty years ago.

In 1902 Bra, a French investigator, described a germ which he isolated from the blood of some epileptics and gave credit to a co-worker, who five years prior to his own work had called atten-

tion to this germ phase of the disease.

The germ described by the Cincinnati physician is the identical organism described and depicted by Bra these many years ago. Epileptographers who for many years before Bra have ardently studied the epileptic problem and who have kept a steady finger on the pulse of epilepsy research, when learning of Bra's work, did not fail to connect their own experience with the apparent discovery and investigated into every possibility presented by the

new theory. Years of labor on the part of the most experienced laboratory talents have failed to adduce a remedy from the germ proposition, and further research disproved the existence of a specific germ of epilepsy.

Inasmuch as epileptics and those connected with them number by the many thousands, a closer examination of the facts underlying the epileptic problem and the disproving of the two state-

ments mentioned should be very helpful.

Truly there are few sights so terrible, so full of agonizing emotions, as a "man gone mad." But madmen are confined in stone and iron institutions, and, fortunately for our sensibilities, are seldom seen.

The epileptic is more unfortunate, more pitiable, more tragic, if possible, than even the madman. Their condition is of more urgent general interest, inasmuch as they are at large and frequently seen in their convulsive attacks.

The epileptic, occupying as he does an intermediate place between the sane and the insane, realizes keenly his hopeless condition, whereas the man who is really insane is spared the mental

agony of this realization.

The epileptic lives a life of fear and apprehension, knowing that he may be seized with an attack at any moment. So, while he is often apparently well and capable of performing work, nevertheless he is in reality barred from enjoying life. His friends and

family do not trust him, nor does he trust himself.

It is a most difficult task to secure attendants who are willing to live with an epileptic. High wages will not for any great length of time procure loyal and loving care for the patient. The only unselfish and devoted attention is given by the epileptic's mother. Only a mother is willing, year in and year out, to enslave herself, to regulate her household, and to subordinate her interest and convenience to the needs of an epileptic child.

This devotion of the mother, however, is too often unappreciated. This ingratitude is due of course to the abnormal mental condition of the patient, which gives rise to all sorts of whims, idiosyncrasies and peculiarities. He receives all kindness and accepts all sacrifices in a domineering spirit; he resents close sur-

veillance, and is often abusive.

The employment of sedatives in the so-called treatment of epilepsy is a greatly responsible factor in the transformation of the patient's behavior, the estrangement and abnormalities. This is borne out by visiting the insane asylums throughout the country, where one may behold many thousand insane epileptics. Investigate their history and you will find that bromide brutalization has played the heavy role in the patient's tragedy.

Look over this legion of the lost and you might wonder where are the doctors who have treated these creatures, who have encouraged them with worthless pet theories, new methods, with

pathys, drugs, fads and surgery.

I should like to see the array of medical men who have fed bro-

mide to these patients; the bulk of bromide consumed, the amount of money wasted, the tears and the heartaches, and the trepidation of those who loved the patients; I should like to see all these elements represented in some way, and then put in opposition to them the results—the insane epileptic, confined behind the walls of the insane asylum, concluding his career of misery. Then I would ask the bromide-prescribing physician of today to view his work and ask him whether such abundant, heaven-onward crying failures were not reason enough to persuade him to discard his "remedy."

Our knowledge of the nature of epilepsy has been gained through years of actual experience with these patients and labora-

tory research.

We have stated in various medical journals that epilepsy is a toxemia; that is, a disease due to the presence of poisonous material circulating in the patient's blood and bathing the brain centers until the well-known epileptic convulsions result. The first essential condition of epilepsy is a unique characteristic of the epileptic's blood, consisting in the faculty to absorb and store up in the blood toxins derived from waste and food products and from other sources of infections present in the patient, and not less so from products of a perverted internal secretion. In the normal, non-epileptic individual this pathological characteristic does not exist and the blood eliminates foreign matter. One agency active in this process is the leucocytes (white blood corpuscles), which are the scavengers of the body, so to speak, surrounding, enveloping and devouring unhealthy matter until the same is finally disposed of as waste.

But the epileptic retains these poisons until intoxication is sufficient to elicit epileptic symptoms. The blood of the healthy animal possesses the protective faculties incidental to normal metabolism, for which reason permanent infection with epilepsy is impossible, as will be shown. Epilepsy cannot be acquired by animal or man whose blood lacks the affinity for toxins, which is the essential element of epilepsy. This epileptic metabolism, a

perverted, pathological condition, is not communicable.

When the blood serum of an epileptic is injected into a healthy rabbit after proper preparation of the animal, convulsions epileptic in appearance, but in reality epileptoid, that is, epileptic-like, will develop. The animal does not acquire epilepsy, and will not have another attack beyond the toxicity of the injected poison, another injection being necessary in order to repeat the attack. Failure to permanently engraft epilepsy is due to the absence of the mentioned unique characteristic of the epileptic blood, the poison-attractive faculty, which we have termed the "epielpto-attractive principle."

This characteristic endows the patient's blood with a ferment which we have isolated and which is capable to produce as well as to inhibit epileptic seizures. Contrary to germ disease, this fer-

ment has no influence upon the non-epileptic and does not possess

the faculty to multiply and establish itself in the system.

In order to prove that epilepsy is caused by the presence of this ferment, and not by a germ, we performed countless laboratory experiments upon rabbits for many years. The results are clear, and may be epitomized as follows:

The intestines are known to be laden with millions of germs, most of them harmless (perhaps due to acquired tolerance on our part), of which, I believe, Mechnikoff has isolated several thou-

sand varieties.

The germ which has been found (first by Bra) in the blood of some epileptics and erroneously thought to be the specific germ of epilepsy, appears to be one of these thousand varieties of intestinal bacilli, always present in the system.

Due to the before-mentioned "epilepto-attractive principle" of the blood, germs may be seized in the same manner as other toxins and thus find their way into the blood stream. They are not the

cause of epilepsy, but an incident.

A good illustration of the manner and effect of germs gaining entrance to the blood under the influence of a diseased metabolism is afforded by the history of typhoid fever. Ordinarily the typhoid germ has its habitat in the intestines, where it is most abundantly present. But when these germs find access into the blood in appreciable numbers (due to a disarranged metabolism) the non-epileptic typhoid patient will have epileptic-like attacks. This condition is known to physicians as the "epileptic state of typhoid." Despite the co-existence of the epileptic-like seizures and the typhoid germs, no one would say that the typhoid germ is the specific organism of epilepsy, and there is no better justification to ascribe this role to any thus far discovered germ.

And still further proof: It is universally known that disease germs in their active state, that is, alive, when injected into animal or human being, are capable of producing the disease for which

such germs are responsible.

For instance, the injection of a solution containing the live tuberculosis bacilli, when injected into man under favorable conditions, will produce tuberculosis. If, however, a solution of dead germs be injected, the disease will not be communicated, the inoculation remaining negative.

Proceeding upon these elementary principles of bacteriology we have treated solutions of epileptic's blood serum, producing an absolutely germ-free, sterile solution, one which contained no

germ capable of producing epilepsy or any other disease.

Nevertheless, this fluid contained the *toxic ferment*, that is, the particular poison which produces epilepsy. Upon injection of this fluid into properly prepared animals we were able to induce epileptoid attacks at will, thereby proving that the responsible element of epilepsy is not a specific germ, but a toxin derived from the uneliminated poisons of the patient's economy.

Disregarding the hemotaxic etiology of epilepsy, championed by me for years, some practitioners attempted to benefit epileptics by abdominal surgery, which, in the light of actual results, should truly be termed abominable surgery. They aimed to cut out the supposedly offending organ, or to straighten an intestinal kink in order to facilitate elimination of bowel contents.

In view of the fact that the epileptics' blood draws from any available source for epileptongenic neurotoxins, such procedure is unsound theory and dangerous practice, even more impotent than

trephining for epilepsy.

The overwhelming, dismal failures that have followed this form of treatment should be the strongest argument against the same. I venture to say that none of the advocates of this form of treatment would be willing to submit case records for investigation. I say this after having placed myself in position to positively know of the disastrous consequences following—disastrous because such operations have made the epileptic less amenable to other treatment, having truly made them incurable because the surgery inflicted upon them constitutes a shock, perverting the functions of internal secretion and thereby placing a permanent obstacle in the road to normal metabolism. These were the cases that failed under serum treatment. I say this as a protest against a practice which has induced many trusting patients, while grasping at the straw of despair, to submit uselessly to such operation; as a protest against a practice which logically, practically, and by experience abundant beyond belief, has proven worthless. Epileptics who have not remained as bad as they were have surely been made worse by the operation. Deeper reasoning and research make it apparent that all forms of treatment not based on the specific pathogeny of epilepsy must be doomed to failure.

In the new serum treatment for epilepsy the fact has been emphasized that the serum completely supplants all bromides and sedatives, unclouds impaired mentality, decreases the severity and frequency of attacks. This has been the case in 70 per cent of all cases treated. Very few have completely recovered if cessation of attacks for periods long beyond the usual time, by discontinuance

of all treatment, may be called a cure.

A REPORT OF SOME UNUSUAL CASES OF DISEASE OF THE NASAL ACCES-SORY SINUSES.*

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Baltimore.

It has been my fortune during the past few years to have encountered a number of cases of nasal accessory sinus disease presenting such unusual characteristics that I have felt them to be worthy of your consideration and discussion.

Case I.—A case of congenital membranous obstruction of both choanae, complicated by unilateral endonasal atresia and double

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suppurative sphenoethmoiditis. Operation. Practical cure. Miss Emma S., aged twenty years, was referred to me by Dr. Wayland Frames, with the history of being unable to breathe through or blow the right nostril; she could inadequately breathe through and inefficiently blow the left nostril.

This condition was attributed by the patient to scarlatina, occurring at the age of ten years, but the underdevelopment of the choanal structures, later discovered, leads me to consider it con-

genital

The patient was pale, thin and underdeveloped. She suffered from headache, and her general health was poor. Sense of smell lost. Hearing normal. Said that she had been operated upon

unsuccessfully by two surgeons.

Examination.—External nose small; complete atresia of the right naris from a point about one inch within the nostril to the choanæ, this being due to cicatrical adhesions from the floor to the attic of the nose, with the exception of a minute canal at the floor of pinhead caliber, extending to posterior nares. Floor of nose covered with albuminoid mucus.

Left naris obstructed by a deviated septum and bony spur at its

middle third.

Examination with the postnasal mirror showed obstruction of both postnasal orifices by a diaphragm, the right one having a small perforation at its lower septal attachment, and the left one having two perforations, one about the middle along the septum

and another just above it.

Operation.—December 12, 1912, from half-past two to four o'clock in the afternoon. An injection of Schleich adrenalin solution was made into the cicatricial area at various points. Powdered cocaine being applied along the turbinals, a probe was inserted into the pinhole fistula, followed by a probe-pointed bistoury, which cut upward along the septum and choanal edge.

A dense synechia between the middle turbinal and the septum was severed with a rectangular knife, and the middle turbinal was resected with Sluder's knife and the snare. Upon removal of the middle turbinal a large gob (one-half ounce) of mucopus dropped upon the floor of the naris. Removal of the turbinal exposed an opening into a large cavity, the sphenoid, whose anterior wall was necrotic.

The ethmoid cells were exsected with Grünwald's forceps and the necrotic anterior sphenoid wall removed. Frontal sinus and antrum were not molested. The right choana was found to be undeveloped and could not be greatly enlarged.

The naris was packed with gauze strips for three or four days, and the patient then furnished with a long splint of guttapercha

for daily insertion, after syringing the nostril.

On February 13, 1913, an attempt was made, under cocaine anesthesia, to cut the two perforations of the left diaphragm into a single one, with a long probe-pointed tenotome and biting forceps; at the same time the bony spur at the middle third of the septum was removed with Hajek's chisel. Dressed with a long

rubber-covered Simpson splint. The patient was kept under observation until March 12, 1914.

At this time she breathed well through the right naris and could blow the same. There was little discharge, and that mainly in the morning. Her general health was greatly improved. She could inhale through the left nostril, but had difficulty in blowing it. The postrhinoscopic picture showed a triangular opening at the lower septal side of the right choana.

By anterior rhinoscopy the movements of the pharynx could be

seen through this.

On the left side was a single perforation about the middle of the membrane; the lower portion of the obstruction had not been removed.

The left side was not free, and the patient complained of suboccipital headache upon this side. Upon probing the anterior

sphenoid wall felt carious and operation was advised.

On December 18, 1914, the patient was etherized, and in the semirecumbent position the posterior half of the left inferior turbinal was removed with scissors and snare, and the middle turbinal with Sluder's knife and Grünwald's forceps.

Turbinal remnants and the posterior synechia were removed with the largest Grűnwald, under the guidance of the finger in-

serted into the nasopharynx.

After completion of the operation the tip of the index finger could be inserted well into the left choana. An attempt was made to further enlarge the right orifice, but the bone was too dense to be cut. The left anterior sphenoid wall was carious and easily removed with sphenoid forceps.

A long rubber-covered Simpson splint was used for twelve hours, and subsequently a cotton-tipped applicator passed often

enough to prevent closure of the opening.

Present Condition.—Following these operations, with the assistance of tonics, the patient improved greatly in her general health, and her weight, which had never exceeded ninety-five pounds, increased to one hundred and ten pounds; her appetite is good.

Her nasal breathing is excellent, and she can blow both nostrils satisfactorily. Headaches have disappeared. No pus is present

in either nostril.

Both nostrils are free and the movements of the posterior pharyngeal wall can be seen through each side. The sphenoid openings are large and the interior of each sphenoid cavity can be inspected and probed.

The postrhinoscopic picture shows a moderate sized triangular opening to the septal side at the floor of the right choana, and a vertical ovoidal opening upon the left side, smaller than normal,

but for all purposes adequate.

It seldom occurs to any one man to see many cases of congenital choanal obstruction. Some experienced observers have never seen a single case. The complications add to the rarity and interest of this case.

Case 2.—A case of melancholic dementia due to chronic sphenoethmoiditis. Cured by operation. Mrs. Fred S., aged thirty-one years, married, one child, was first seen by me on February 10, 1907, complaining of inability to breathe through the right

nostril. No discharge. Sense of smell lost.

Neuralgic pain at right temple and over right eye. No asthma. Left nostril at present clear, but she has had polypi removed from both nostrils. Whenever her nose becomes stopped she suffers from mental depression. Some years ago she lost her mind temporarily and was a resident of one of our insane hospitals. Duration of condition, seven years. At present she is sane, but peculiar and eccentric, with a coarse, masculine voice. At times preceding her menses she exhibits epileptiform convulsions.

A polyp was removed from the right naris at this visit.

Patient was not seen again until February 26, 1908, when several polypi were removed from the right nostril, also in June,

same year.

On December 17, 1909, she returned, complaining of severe headache, at times almost intolerable. Multiple small polypi were found in the left nasal attic and a medium-size polyp in the right naris.

On December 21 an anterior ethmoidectomy was done on both

sides with Luc's forceps, and the nasofrontal ducts probed.

Early in the operation the patient had an epileptiform convulsion and collapse, requiring the use of stimulation. The operation was completed (cocain anesthesia), when the patient became unconscious and remained so for several hours; pulse and general condition good. She then disappeared until May, 1913, when she returned, complaining of return of headache and mental depression.

Multiple polypi were found in both nostrils and a diagnosis of

chronic sphenoethmoiditis was made.

May 12, 1913, multiple polypi were removed from both nostrils and the ethmoid cells exenterated with Grünwald's forceps and

Worthington's curettes.

The anterior wall of both sphenoids was removed. The patient fainted many times during the operation, under local anesthesia, and at the termination became unconscious and remained so for two hours.

She was seen at intervals until November 4, 1913. At this time she had had no headaches and her mental condition was normal. No polypi were present and both sphenoids were wide open and accessible to treatment.

Subsequently the patient left to take up her residence in Texas. The climate, however, did not agree with her, and she returned to Baltimore, and was seen by me on July 20, 1914. At this time I removed a large polyp from the right nostril and several small anterior polypi from the left. Both sphenoid fistula were wide open, exposing the interior of the sinuses.

The patient has been seen at irregular intervals since, and was examined January 26, 1915.

She was in splendid general and local condition; looks and feels well; her voice is much softer and more feminine.

She is conscious of a change in herself and no longer feels and acts "queerly," as she formerly did. She rarely has fits of depression.

Although the influence of nasal conditions on the mental faculties was recognized by the ancients, I am convinced that cases of mental disease are at times classed as "incurable" without adequate examination of these regions.

Although an inmate of one of our best conducted institutions, as far as I can learn from a most careful inquiry, no examination of the nose by an expert was ever made or suggested in this case.

Case 3.—A case of suppurative sphenoethmoiditis simulating ozena and causing mental confusion, impaired memory, intense headache and blurred vision. Cured by operation. Miss Rita T., aged twenty-four years, single, consulted me on January 17, 1912, with a discharging left ear, mastoid tip tenderness, but normal temperature. After a free myringotomy and under suction irrigation with Fowler's douche, the condition cleared up in eleven days without further operation. During this attendance I learned the following history:

Patient had suffered for years from a loss of sense of smell, associated with a scabby discharge of foul odor, unless the nose was kept clean; this was told me by the patient and spoken of by her friends.

She suffered also from headaches of a mixed form, at times neuralgic in type, temporal and supraorbital in location, at other times dull and suboccipital, and again a combination of the two. These headaches had no relation to the menstrual periods.

When suffering from these attacks her vision was frequently blurred, and at times she exhibited a dazed mental confusion, so that she did not know in which direction to go. This syndrome she terms "spells." On one occasion she had manifested embarrassed respiration and loss of consciousness for about an hour.

Upon examination both nostrils were found to be filled with moist scabs; the left inferior and middle turbinates were atrophic. Upon aspiration, after cleansing, pus was seen exuding from the sphenoid, whose outer wall was covered with granulations. Probing caused pain similar to the suboccipital headache to which patient was subject. No ostium sphenoidale could be found. Creamy pus was seen trickling over the head of the left middle turbinal.

On March 13, 1912, under twenty per cent. cocain, the left middle turbinal was removed with Luc's forceps, and granulations and bone curetted from the anterior sphenoid wall.

As no ostium could be found, further operation was postponed and the nose was packed with gauze strips. The patient endured the operation well and left the operating-room in good condition.

Some fifteen minutes later she began to exhibit convulsive seiz-

ures of an epileptiform character.

This seizure being typical of others which followed later, I shall describe it somewhat in detail. The patient was unconscious with pupils widely dilated. Her forearms were contracted, fists tightly clenched and legs drawn up against the abdomen. She would continually thrash her arms about from side to side, striking herself or anyone within reach, unless restrained. At times the body would assume a condition of opisthotonos. The respiratory movements increased in rapidity until a condition of apnea ensued. The patient would then hold her breath until one began to wonder whether she would ever breathe again.

A slow inspiration would then occur, followed by increasingly rapid breathing and a repetition of the cycle (Cheyne-Stokes).

During this time the pulse, though rapid, was good. This seizure lasted about five hours, was of a most alarming nature, and the convulsions could only be controlled by etherization. At the end of the attack the patient suddenly regained consciousness.

The nature of this seizure will be discussed later on.

March 14 the nasal packing was removed, and by March 26 all wounds had healed.

Treatment of the mucous membrane with a pigment of thigenol was begun, and the patient put upon Blaud's pills, fresh air and rest.

She was very nervous, with twitching muscles, and on one or two occasions had fainting spells. When seen on April 29 the nasal mucous membrane was much improved, presenting a small amount of clear mucus resembling syrup. She had had no suboccipital or severe headache. Was very nervous and went away for a two weeks' change. After her return she was seen and treated at varying intervals until December 11, 1912, when she reported that she had had no return of her "old headaches," her nerves were much better, and she no longer had "spells."

The nose was quite clean, contained no crusts and only a small amount of mucopus in the anterior ethmoid region. The patient was furnished with a nasal syringe douche for home use and treated at the office at increasing intervals until June 25, 1913.

At this time she stated that she had had a terrific suboccipital headache the preceding day, and on several occasions previously, sometimes in morning and sometimes in evening. By systematic probing I finally discovered the ostium sphenoidale situated high up and far around to the septal side of the anterior wall of the sphenoid. This was a very narrow opening leading into a large cavity, lying partly upon the opposite side of the septum. The bone within the sinus felt and sounded bare.

Opening up of the sphenoid was advised, but deferred by the

patient.

On September 16, 1913, she returned, complaining of dull headache on left side, mental depression, loss of memory and confusion in orientation. Operation was insisted upon and performed

under local anesthesia, duration about three-quarters of an hour.

A large sphenoid sinus was opened up, and overlapping this to

the outer side a large posterior ethmoid cell containing pus.

Convalescence was prolonged and attended with severe suboccipital headaches and general weakness. On October 22 she reported that she had had no headaches for a week and felt fine. No mental confusion since the operation. Headaches became less frequent and severe and changed their type from suboccipital to vertical.

On January 28, 1914, she reported that she had been without

headache of any kind for ten days.

On that day she had a slight dull pain on the left side of the head; this was relieved by cocaine carbolic application within the

sphenoid cavity.

On March 6 she complained of a severe hemicrania on the right side, which was relieved by cocainization of the right and left sphenoid (Sluder's method). Four days later a milder attack was benefited in the same way.

Shortly afterward the patient was seized with pain and swelling over the appendix and was confined to the house, but no operation was done. This appendicitis was probably secondary to the nasal

suppuration. She has had no subsequent attack.

On May 23 the patient reported that she had had no trouble at all for six weeks; had increased in weight and "felt better than she ever did in her life." Her looks confirmed this statement.

She reported again on July 13 with a recurrence of headache on the left side, which was found to be due to a protuberant mass of granulations which was removed from the sphenoid fistula.

On October 13 she reported that she had been having severe

suboccipital headaches, mostly on the right side.

About one week previously she found that she could not use her left limb upon awakening, but this passed off during the day. She also told me that about one year before this she had a similar attack on the right side in a "movie parlor" and had to ride home in a taxicab. The first attack lasted for a period of six days, during which she was confined to bed.

At this period I had visions of a latent brain abscess. The alarming symptoms did not recur, and I insisted upon operation

on the right naris.

This nostril presented the following condition: Considerable sticky mucopurulent secretion from hyperplastic ethmoiditis, the hypertrophied middle turbinal being so tightly jammed against the septum that a fine probe could scarcely be forced between them. Under cocainization the probe could be passed into the right sphenoidal ostium.

A radical sphenoethmoid operation was done on November 3, 1914, by Mosher's method, under ether; time about one and one-

quarter hours.

The ethmoids were somewhat sclerosed and shallow. The sphenoid was of medium size and the ostium higher up and

farther to the ethmoid side than normal. This was enlarged by the usual method, and the left sphenoid fistula, which had somewhat closed, was reopened.

Ether anesthesia was employed under the idea that the convulsive seizure of the previous operation may have been due to cocaine intoxication. Notwithstanding this, the usual epileptiform convulsions occurred, although by no means as severe nor of as

long duration (about four and one-half hours).

These also could not be controlled by repeated etherization. As before, the Cheyne-Stokes respiration was exhibited. Shortly after the operation a hemorrhagic effusion occurred into both eyelids of the right eye, closing the eye and causing a black eye that lasted for some weeks.

At the first dressing on November` 10th a slight tendency toward convulsive movements was noted, but no further consequences ensued, and the patient left the hospital on the following day.

From this time she had progressed favorably, gaining flesh and strength, assisted by tonics, and on January 28, 1915, stated that

"she had never felt as well in her life."

Patient returned on February 5, 1915, complaining of a bad

headache located at the posterior portion of the vertex.

There was no congestion nor swelling within the nose, and drainage was unimpaired. A one per cent. carbolized oil distillation was made into each sphenoid cavity, and the headache disap-

peared the same evening.

She was not seen again until February 23, when she reported that she had had no trouble for two weeks and never felt as well in her life. There was little nasal secretion, the sphenoid fistula were wide open, and the interior of these cavities loked dry and healthy.

Regular treatment was stopped at this time.

Six weeks later (about April 1) patient reported that she had had no trouble until that day, when she had a slight headache.

An instillation of two per cent. carbolized oil was made into the sphenoids, and the patient has not been heard from since.

Of course I am aware that the word cure cannot be employed in an absolute sense in a case of this kind, and that she will always have to devote attention to her nose herself and be kept under observation.

Aside from slight and occasional headaches, all serious symptoms have disappeared; her general and nervous condition is excellent; she has gained in weight, feels well and looks well.

Several interesting questions arise in connection with this case. What was the nature of the impairment of motion of the legs, described by the patient as occurring on two distinct occasions?

In a person of her neurotic temperament, hysteria might well serve to explain this and subsequent nervous phenomena, and the short duration and spontaneous recovery without serious consequences would seem to substantiate this view. And yet I must

confess that I was much alarmed when I learned of these occurrences, and feared brain abscess or other grave cerebral conditions. Unfortunately, I was not summoned at the time and had no opportunity of observing the attacks.

Efforts to secure a neurologic consultation did not meet with the approval of the patient's parents, as the condition was so

transitory and there were no ill after-effects.

What was the nature and significance of the epileptiform seizures following each operative manipulation? The first attack I was inclined to attribute to cocaine intoxication (twenty per cent.) and nervous excitability; but the pulse was good; there was no cyanosis, and there was no sweating nor clamminess of the skin. Moreover, a similar attack occurred under ether anesthesia. Observation of the seizures with the violent movements of the arms and legs, and opisthotonos, suggested hysteria, but she was unquestionably unconscious, and would have injured herself had these movements not been controlled.

In my opinion, hysteria does not account for all of these nervous phenomena; but there was some irritation of the higher centers of the brain and cord, originating in the nose and transmitted through the nasal branches of the fifth nerve.

Some suggestion of an epileptic inclination was afforded by the

general tonic and clonic spasms, and loss of consciousness.

In this connection the "spells" manifested at times by the patient should be considered. These were attended with mental depression, impaired memory and mental daze, with and without head-

Upon her visits I frequently noticed that the patient seemed in a condition of great nervous tension, manifesting spastic contraction of the arm and leg muscles, and at times the face. Could these manifestations be regarded as "epileptic equivalents" originating in the nose from reflex irritation or toxic absorption, and acting in the brain?

The headache in this case was of a complex type, and due partly to toxic absorption, partly to reflex irritation from pressure contact and pus retention, but largely to irritation of the sphenopalatine ganglion, as proven by the result of the local treatment.

Amblyopia was a part of the syndrome which she designated This existed only during the attacks, and in the in-

tervals vision was normal.

This is one of the commonest of the many ocular complications of sinus disease, especially the posterior ethmoid and sphenoid sinuses. Its cause is not well understood, by some being attributed to pressure and reflex irritation, and by others to absorption of toxins.

Case 4.—A case of fracture of the skull involving the left frontal sinus, roof of orbit and nasal wall, producing a self-performed Killian operation. Exposure of the brain. Subsequent infection and empyema of the frontal sinus, draining through the nose. Operation—cure. James S., a colored man, aged thirtyfour years, of rather low intelligence, was referred to me by my

colleague, Dr. S. K. Merrick.

He had been admitted to the surgical department of the University Hospital on October 30, 1913, with the history that in the preceding June he had run into a post while playing "catcher" in the dusk.

This was followed by neuralgic pain in the head and pain in

swallowing, which symptoms improved later on.

Upon entering the hospital he exhibited a swelling in the frontal region and marked edema of the eyelids of both eyes, especially the left. This had existed for about ten days.

Temperature and leucocytosis were normal. Also eyegrounds

and pupillary reaction.

A radiogram taken at this time showed large, unusually clearly defined frontal sinuses, with no evidence of the conditions subsequently found.

Noticing a foul odor and profuse purulent discharge from the nostrils, the case was transferred to the nose and throat depart-

ment for treatment.

Examination of the nose at this time showed obstruction of both nares, the left naris being almost blocked above by a greatly deformed septum; probing discovered bare bone. Both nostrils contained moist scabs of a foul odor, and a profuse purulent discharge existed on the left side.

External frontal operation was determined upon, and performed under ether (vapor apparatus) on November 28, 1913,

with the assistance of Prof. Merrick and Dr. Stem.

Owing to the great infiltration of the supraorbital tissues, I incised very slowly and carefully through these, and not encountering bony resistance at the usual depth, by the use of the probe I discovered that the anterior sinus wall was missing; I also found the sinus cavity to be filled with granulations, and could not detect the bony resistance of the posterior wall. Very cautiously the mass of granulations was removed and the sinus cleaned and dried. It was then seen that the greater part of its posterior wall was destroyed and the cerebral dura exposed over an area as large as a twenty-five-cent piece.

At the lower inner angle of the sinus a loose mass was detected, which, with a little manipulation, was extracted; this sequestrum measured about one and one-half by one-half inches, and upon study proved to consist of the left nasal process and a portion of the nasal bone, together with the inner portion of the lower orbital rim and floor. I also removed a loose piece of bone from the top of the nasal septum, and fragments from the floor of the frontal

sinns

After cleaning up the operative field, upon careful examination I observed at the upper inner angle of the sinus a gray convoluted area, which resembled and which proved to be anterior frontal convolutions. These were exposed over an area as large as the little fingernail and were denuded of dura matter.

This fact was substantiated at the time of operation by a general surgeon who was present, and subsequently during the dressing by another experienced general surgeon.

The operation was completed and the nasal wound closed, but the frontal was left wide open. Upon applying the dressings I remarked to my assistants and students that I did not expect the

patient to survive forty-eight hours.

The following day he showed little effect from the operation, and, in fact, I was told that he had gotten up in the night and attempted to go to the toilet unassisted. The dressings were changed the following day and daily thereafter as long as necessary—subsequently at longer intervals—by myself or my intern, Dr. Stem.

For a time there was considerable swelling and soreness of the left forehead above the sinus region, and much pus could be stripped down by pressure. On two occasions sequestra of considerable size worked their way slowly downward into the wound

area and were removed.

No general symptoms of interest were manifested until December 19, 1913, when the temperature rose to one hundred and two degrees and cough developed, marking the onset of a bronchopneumonia, through which he was successfully piloted by my colleague, Professor Zueblin.

The patient remained in the hospital and was dressed at suitable

intervals until June 4, 1914.

The only noteworthy occurrence during this period was exposure to a case of smallpox, necessitating the quarantining of himself and the entire ward.

At the time of his dismissal the patient was going about doing

odd jobs around the hospital.

The greater part of the wound had closed, and the skin of the forehead had been turned in and had covered over the exposed brain.

There was a slight mucous or mucopurulent discharge at the lower inner angle of the fistula.

The patient dressed this himself with a piece of gauze and adhesive plaster.

He also used an alkalin nasal douche with a syringe.

Having in mind an ultimate plastic operation, which I hesitated to perform at the time, and wishing to keep this case under observation, he was retained as orderly in one of the wards of the University Hospital. He was seen from time to time, and upon one examination I discovered an empyema of the left anthrum and a right nasal sequestrum.

The frontal wound was in good shape and required little atten-

tion

He was last seen early in April, 1915. I was preparing to correct the nasal and antral conditions, when for some infraction of discipline he was dismissed from his position.

This was nearly two years from the date of injury and one year

and four months from the date of operation. Of this time (one hundred and eighty-four days) six months were spent in the

hospital.

I am aware that there may be some question as to the origin and nature of the conditions present in this case. Personally I am convinced that a traumatic fracture of the frontal bone and both walls of the frontal sinus, associated with fracture of the nasal process and orbit occurred. Also of the nasal septum.

Subsequently the sinus became infected from the nose, setting up an empyema, which would have resulted in serious consequences but for the excellent drainage which was afforded by the

accident.

I am led to this belief by the definite history of injury and the clean-cut appearance of the sequestra removed. Also the absence of a syphilitic causation, established by a negative Wasserman—not once, but on several examinations.

Another question which I would like to hear discussed is as to the proper line of conduct in a case of this kind. Granted that all sequestra had been removed and that suppuration had ceased, would it be good judgment and conduct to dissect up the skin and attempt to correct the deformity by a plastic operation, or would it be wiser to "play safe" and let it alone?

In conclusion, I hope that these case histories have proven of sufficient interest to justify their presentation and the use of the term "unusual" employed in the title of the paper.

A Handbook of Infant Feeding. By Lawrence T. Royster, M.D., Attending Physician Bonney Home for Girls and Foundling Ward of the Norfolk Society for the Prevention of Cruelty to Children; Physician-in-Charge of King's Daughters' Visiting Nurse Clinic for Sick Babies. Illustrated. St. Louis: C. V. Mosby Company. Cloth, \$1.25 net. 1916.

This book is along simple, practical lines, and is an epitome of what is the practices of the day. As such it should wield a potent influence in creating a better understanding of the principles of infant feeding, both the normal and the diseased child. At one time there was too great a tendency to treat all artificially-fed children of a given age with an unvariable formula. The common sense of the profession has demonstrated the futility of feeding children in this manner, the digestive apparatus of one child taking care of a much stronger cow's milk than that of another, so that today when a child for one reason or another must be taken off the breast, the physician in charge must be versed in the method of supplying a substitute food. Royster approaches the subject in as simple and practical method as could be desired. Stripping the book of statistics and getting right down to the kernel of artificial feeding, he succinctly and compactly tells what are the practices of the modern pediatrists in this line, and anyone needing a book of this character will be pleased with the volume before us.

MARYLAND MEDICAL JOURNAL

NATHAN WINSLOW, M.D., Editor.

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THOMAS R. BROWN, M.D. HUGH H. YOUNG, M.D. RICHARD H. JOHNSTON, M.D. Jose L. Hirsh. M.D. A. Samuels, M.D.

BALTIMORE, DECEMBER, 1916

THE FIRST EXAMINATION OF THE NATIONAL BOARD OF MEDICAL EXAMINERS.

THE first examination of this board was held in Washington, D. C., during the week of October 16 and lasted six days.

The examinations were both written and oral, as well as practical in the wards of hospitals and in the Government laboratories. They were very rigid.

There were thirty-two applicants, from seventeen States, representing twenty-four medical schools. Sixteen were accepted as having the necessary preliminary and medical training—only ten men, however, took the examination, and of these only five passed.

Four applicants were from Rush; two passed and two failed.

Three from Hopkins, two passed and one failed.

One from Michigan passed.

One from Bellevue and one from Howard failed.

This is a small beginning of what, we hope, may be a great institution. At present there are at least fifty bodies claiming jurisdiction over medical education and licensure. It is impossible to obey so many masters. The medical schools are harassed by various boards with divergent standards. It is essential that we have a central body with standards that will be satisfactory everywhere. At present the examinations of this board are purely voluntary. We would be glad to see them compulsory.

The next examination will be held in Washington in June, 1917.

THE KINEMATOGRAPH IN RELATION TO MEDICAL INSTRUCTION.

MEDICAL teachers and lecturers are quick to make use of any scientific discovery that promises to be of service in elucidating their instruction. Diagrams and drawings have largely given place to lantern-slide demonstrations, and the tendency now is to supplant in many cases static, with moving-picture illustrations.

There are many advantages in this method; there is one great disadvantage, which is its cost. Probably as the process becomes more used it will also be available at a much smaller outlay than at present.

The first time the writer had the opportunity of seeing this method applied to a medical subject was at the meeting of the Southern Surgical and Gynecological Association in 1911, when Dr. Rudolf Matas, in his presidential address, exhibited moving pictures of normal and pathological conditions of the blood, as well as of surgical operations. It was certainly instructive in the highest degree to view the circulation of the blood in the vessels as plainly as if seen through a microscope. Not only instructive but gruesome was it to see the spirochetae of syphilis also circulating in the blood and contaminating this life-giving fluid.

More effective, perhaps, than the diatribe of a vice-crusader is such a demonstration.

A great field of usefulness of this invention is the accurate reproduction of many of the phenomena of disease, especially those of a convulsive or spastic condition of the muscles, and the demonstration of surgical procedures.

The foregoing remarks have been suggested by the exercises of two very delightful meetings of the Baltimore City Medical Society, held recently in this city. At a joint meeting of the Baltimore City and Baltimore County Medical Societies, held on November 10, Dr. Fred H. Albee of New York made a most entertaining address upon his experiences and observations in England and France, and he exhibited motion pictures of injuries and mutilations of an unbelievable character, from which the

patients were rescued, with, in many cases, a very moderate deformity or disfigurement. One reel showed Professor Laurent removing a piece of shrapnel from the heart of a soldier, and, in answer to a question as to the result of the operation, the patient was shown, standing before the audience, smiling and bowing and dressed in his full uniform. He took a stickpin from his scarf and held it up for inspection. It was made from the piece of metal that had been imbedded in his heart.

Other reels showed the effects upon the nervous system of soldiers who had been long in the trenches and had received no actual traumatisms. These men were suffering from spastic conditions of the extremities; some could not walk; others had contractions of muscles or palsies.

Not less interesting was the kinematographic reproduction of bone-grafting operations performed by Dr. Albee himself. At the meeting held November 17 a reel showing a thyroidectomy by Dr. Charles H. Peck of New York was exhibited. Dr. Peck was not present himself, but we were able to attend his clinic without the cost and trouble incident upon a trip to New York. This is one of the great advantages of this method. Medical societies that may not be able to secure the presence of distinguished lecturers, and individuals who may not be able to visit the great clinics, may, nevertheless, enjoy and profit by the work of the masters in their own halls at home.

Dr. Howard A. Kelly also demonstrated the steps of an abdominal hysterectomy as performed by himself.

While we have had numerous lantern demonstrations, which in main are very satisfactory, these moving-picture illustrations are an innovation in our society programs and one that we are sure will be frequently employed in the future. It means a well-attended and live society instead of what is frequently a dull and sparsely-attended meeting.

Medical Items.

The twelfth Maryland Conference of Charities and Corrections was held at the Emerson Hotel in conjunction with the Delaware and District of Columbia conferences, November 14, 15 and 16.

At the meeting of the Baltimore City Medical Society, November 3, infantile paralysis was discussed by the health authorities and P. A. Surgeon James P. Leake of the United States Public Health Service, who spoke on the epidemic in New York.

A report on necropsy findings, with an exhibition of specimens, was made by Dr. John F. Hempel of the Health Department. Dr. John D. Blake, Health Commissioner, also spoke, telling how the Health Department handled the situation in Baltimore.

The National Board of Medical Examiners held its first examination from October 16 to 21 in Washington, D. C.

There were 32 applicants from 17 States, representing 24 medical schools, and of these 16 were accepted as having the necessary preliminary and medical qualifications, 10 of whom took the examination. The following men passed:

Dr. Harry Sidney Newcomer, Johns Hopkins University.

Dr. William White Southard, Johns Hopkins University.

Dr. Orlow Chapin Snyder, University of Michigan.

Dr. Thomas Arthur Johnson, Rush Medical School.

Dr. Hjorleifur T. Kristjanson, Rush Medical School.

The second examination will be held in Washington, D. C., June, 1917. Further information may be had by addressing Dr. J. S. Rodman, secretary, 2106 Walnut street, Philadelphia, Pa.

Dr. G. MILTON LINTHICUM, captain in the Medical Corps of the Fifth Regiment, is at home on a 30-day furlough. While he was on the border he was connected with the new Eagle Pass Hospital.

Dr. Thomas B. McDonald, Cumberland, is in a critical condition from a general breakdown brought on by the shock of his little daughter's death from infantile paralysis.

THE regular meeting of the Medical Society of the University of Maryland and College of

Physicians and Surgeons was held Tuesday, November 14, 1916, at 8 P. M., at the Chemical Hall, Lombard and Greene streets.

Dr. Martin E. Rehfuss spoke on the "Problems in Gastro-Intestinal Diagnosis," with a discussion of recent methods employed in the study of these conditions. Dr. John C. Hemmeter spoke on "Water Metabolism of the Body."

The meeting was followed by an election of officers for 1916-1917.

THE friends and associates of Dr. J. Percy Wade commemorated the twenty-fifth anniversary of his services at Spring Grove Hospital by tendering him a dinner at the Baltimore Club on the evening of October 26.

Dr. Wade was appointed assistant physician at the hospital on October 26, 1895, and became superintendent April 15, 1896.

It has been announced that the United States Government will pay Baltimore \$176,775 for the quarantine station, and the money thus obtained will be devoted to the establishment of a general municipal hospital.

Dr. Thomas L. Richardson and the other physicians at the station will be retained by the United States Public Health Service, which will operate the station. The city is to have the privilege of sending smallpox patients to the quarantine at the charge of \$1 a day per patient.

At the monthly meeting of Mercy Hospital House Staff Medical Society, interesting papers were read by Dr. Erwin E. Mayer, Dr. Lucien R. Chaput. Dr. George L. McLean and Dr. G. R. Post.

Dr. C. A. CLAPP of 513 North Charles street was among the local doctors attending the annual meeting of the American College of Surgeons, held at the Bellevue-Stratford, in Philadelphia.

Dr. J. C. Bloodgood of Baltimore attended the Tenth Annual Session of the Southern Medical Association, held in Atlanta, Ga., November 13, 14, 15 and 16.

A MOTION-PICTURE EXHIBITION was held under the joint auspices of the Baltimore City Medical Society and the Baltimore County Medical Society at Osler Hall, 1211 Cathedral street, Friday, November 10, 1916.

Remarkable motion pictures taken in the European hospitals showing the methods of Dr. Alexis Carrel of the Rockefeller Institute

MARYLAND Medical Journal

Medicine and Surgery



The Medical Journal Company

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WASHINGTON

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MARRIAGES.

JOHN S. B. WOOLFORD, M.D., University of Maryland Medical School, '96, of Chattanooga, Tenn., formerly of Cambridge, Md., to Miss Eliza Leiper Winslow of Baltimore, Md., October 23, 1915. Dr. and Mrs. Woolford will make their home in Chattanooga.

Charles Percy Noble, M.D., University of Maryland Medical School, '84, of Chestertown, Md., to Miss Elizabeth M. Scanlan of St. David's, Pa., at Towson, Md., October 7, 1915.

JOHN R. PERKINS, M.D., resident surgeon of the Baltimore Eye, Ear and Throat Charity Hospital, to Miss Mary J. Miles of St. Mary's county, Md., at Baltimore, November 3, 1915. Dr. and Mrs. Perkins will go to Winston-Salem, N. C., where Dr. Perkins will begin practice.

JOHN CHRISTOPHER WOODLAND, M.D., University of Maryland Medical School, '15, of Jessups, Md., to Miss Margaret Blanch Owings of Sparrows Point, Md., at Sparrows Point, November 17, 1915. Dr. Woodland is resident physician at the State Reformatory School at Jessups.

JULIAN MASON GILLESPIE, Assistant Surgeon, U. S. P. H. S., University of Maryland Medical School, '09, formerly stationed at the U. S. Marine Hospital, Louisa, Va., to Miss Verna Mary Duplantis of New York City, at New York, October 12, 1915. Dr. and Mrs. Gillespie will be at home to their friends after November 1 at 609 West 137th street, New York.

WARFIELD THEOBALD LONGCOPE, M.D., Johns Hopkins Medical School, 'or, of New York city, formerly of Baltimore, to Miss Janet Percy Dana of New York, at New York, December 2, 1915. Dr. Longcope is at present on the staff of the Presbyterian Hospital, New York, and is a member of the faculty of Columbia University. He resides at 680 Madison avenue, New York city.

HARRY ALOYSIUS BISHOP, M.D., University of Maryland Medical School, '12, of Washington, D. C., to Miss Roberta Carson Morgan of Fort H. G. Wright, New York, at New York, October 6, 1915. Dr. and Mrs. Bishop will be at home after December 1 at 1430 Rhode Island avenue, Washington, D. C.

WILLIAM WIRT EICHELBERGER, M.D., University of Maryland Medical School, '04, of Rockford, Ill., formerly of Baltimore, Md., to Mrs. Anna May Steele of Evansville, Ind., at Henderson, Ky., November 24, 1915. Dr.

Eichelberger was formerly associated with Bayview Hospital.

DEATHS.

RAYMOND CLAUDE FOUT, M.D., University of Maryland Medical School, 'OI, of Kemptown, Md., formerly a member of the Medical and Chirurgical Faculty of Maryland; president of the Mount Airy People's Lumber and Supply Company; died in the Baltimore Eye, Ear and Throat Charity Hospital, November 2, 1915, from posttonsilar abscess, for which operation was being performed, aged 37 years.

WILLIAM M. BARTLEY, M.D., Baltimore Medical College, '95; a Fellow of the American Medical Association and one of the most prominent practitioners of North Dakota; coroner of Eddy county and a member of the Legislature; died at his home in Sheyenne, November 6, 1915, from diabetes, aged 46 years.

Louis A. Monmonier, M.D., University of Maryland Medical School, '64, of Waverly, Baltimore, died at the home of his niece in Baltimore, October 26, 1915, from cerebral hemorrhage, aged 71 years.

Augustus W. Crow, M.D., College of Physicians and Surgeons, '75, died at his home in Livia, Ky., July 18, 1915, from tuberculosis, aged 64 years.

EDWIN D. SCHAEFFER, M.D., Baltimore Medical College, '93; a Fellow of the American Medical Association; for many years a member of the school board of Reading Pa.; died at his home in that city, October 23, 1915, from septicemia, aged 48 years.

JOSEPH R. HUNT, M.D., Physicians and Surgeons, '88, of Laurel, Md., died at his home in Laurel, from paralysis, October 19, 1915, aged 50 years. Dr. Hunt was a director of the Citizens' National Bank of Laurel and was Mayor for one term.

EDWIN D. SCHAEFFER, M.D., Baltimore Medical College, '93, one of the leading physicians of Reading, Pa., died suddenly at his home, 317 South Sixth street, October 22, 1915, from blood poisoning, aged 47 years.

CARL A. Hollingsworth, M.D., University of Maryland Medical School, '81, of Belair, Md., died at his home after a lingering illness, November 11, 1915, aged 58 years.

PHILIP R. HENGST, M.D., College of Physicians and Surgeons, '83, of Waco, Tex., died suddenly in Baltimore, Md., December 13, 1915, aged 59 years.

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REPRINTS.

THE MEDICAL CORPS OF THE OPPOSING EUROPEAN ARMIES.

The Medical Times.

GERMANY.

Of all the medical corps of the nations now at war in Europe, that of the German army is undoubtedly the best organized and equipped. The surgeons of the regular army are highly scientific men, and include splendid operators as well as specialists in every branch of medicine. In addition, the reserve includes all of the best men in Germany. Over 12,000 medical men are now serving the German army as surgeons. Some are in the field and others in the various civil and military hospitals. Every regiment in time of peace has its Oberstabsarzt, or Chief Surgeon, and each battalion has a Battailonsarzt and four Assistenzärzte. In war time this force is quadrupled. Besides the non-commissioned officers and privates of the medical corps, there are many third-year medical students in the corps. These men have had considerable clinical experience, and after passing a "notexamen" or emergency examination, are taken into the corps for ambulance service. There are also many Krankenträger, whose business it is to transport the wounded from the battlefield to the nearest field hospital, after they have received first aid on the field at the hands of medical officers whose places are on the firing line. The first aid packet carried by every German soldier includes a sterile compress, bandage and safety pins. German soldiers are taught first aid, and they have been able to do effective work in this campaign. The newspapers report that the wounded Germans who have been seen by American physicians have been most skilfully bandaged.

German medicine, as the world knows, spells efficiency. German military surgery is quite abreast of the other branches of medicine, and there is a professorship of military surgery in every German university. No student can receive his diploma until he

has passed an examination in this important branch.

For a hundred years there has been in Berlin an institution, now called the Kaiser Wilhelm Institute for military surgery, popularly known as the "Pepinire," corresponding to our Army Medical School in Washington. It has an attendance of about 600 students, and from this institution the army recruits most of its regular surgeons. Some physicians in serving their term of compulsory army service spend six months as privates in the line, and the rest of the time as second lieutenants in the medical corps, and a few of these later on pass the examination and enter the regular service with the title of Unterarzt.

Practically all the great surgeons of Germany, like Bier, Lexer, Friedrich, Garre, Payr and Küttner are serving with the colors, and they have with them their entire staffs. Lieut.-Gen. Prof. Dr. von Schejering is in supreme command of the German Army Medical Corps.

The thousands of American medical men who have visited the German clinics will have no difficulty in imagining what fine surgical work is being carried out in the German army when such

masters of the art are in the harness.

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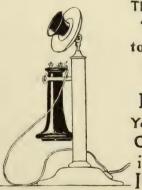
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Many German surgeons saw active service in the Balkan war, as seven Red Cross expeditions were sent to Turkey alone from

Germany.

The sanitary soldiers of Germany are highly trained in finding and caring for wounded on the field. They are especially adept in distinguishing the severity of the wounds, and they possess every known means of transportation. They employ dogs to seek out the wounded lying in out of the way places, and at night searchlights aid the sanitary corps in its humane work.

When the medical history of the war is written, the accomplishments of the German medical corps will undoubtedly demonstrate

that in point of efficiency it was unsurpassed.

AUSTRIA.

The makeup of the Austrian Army Medical Corps is largely patterned after that of Germany, especially in the assignment of regimental medical officers. Its sanitary soldiers are also similar, but it is believed they are not as capable as their German cousins.

The Corps is under the command of Gen. von Eiselberg of Vienna, who was compelled to leave the Clinical Congress of Surgeons before its adjournment on account of the outbreak of hostilities between Austro-Hungary and Servia.

In the reserve is found the best medical men in the empire. No figures are given out regarding the number of medical officers.

BELGIUM.

The Belgian army has four divisions, and its medical service is under the command of a director of medical services. In the field the service comprises the regimental medical service, ambulance service, field hospitals and Red Cross.

Each infantry regiment has a senior medical officer, and each battalion two officers. In addition are the stretcher bearers in command of a sergeant. Practically the same personnel is given cavalry and field artillery regiments.

There are three kinds of field ambulances, the headquarters,

divisional and cavalry field ambulances.

They perform the work incident upon their own outfits.

There are two field hospitals to each division, and besides there are the surgeons on the firing line, the regimental aid-posts and dressing stations. Stretcher bearers play an important part in carrying out the work of these units.

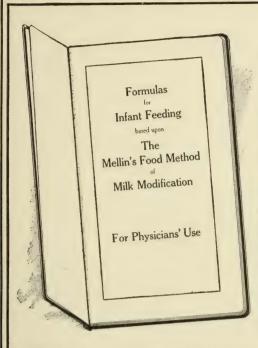
A field ambulance of an infantry division has five officers, 224 men and 65 horses. A cavalry division field hospital has five officers, 34 men and 32 horses. A field hospital carries six officers, 38

men and 24 horses.

The officers in the regular service are I major-general, 6 colonels, II lieutenant-colonels, I5 majors, 64 captains, 42 first lieutenants and 36 second lieutenants. The pharmacists have I lieutenant-colonel, 4 majors, 23 captains, 7 first lieutenants and I9 second lieutenants. These numbers are largely augmented now with reserve surgeons and pharmacists.

There are in Belgium 16 military hospitals. The largest are Antwerp, 525 beds; Beverloo, 350 beds; Brussels, 325; Liege and Ghent, 300; Louvain, 250; Malines, 200. Namur has 162, Mons, Tournai and Bruggs 150, and the following 100: Termonde, Os-

tend, Ypres, Arica and Vilvorde.



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FRANCE.

In the French Republic considerable secrecy surrounds its army medical department, and figures are not readily obtainable. The surgeon-general has the rank of major-general, and the regular service contains a large and most capable body. A noticeable feature is the number of compartively young men in the higher grades, many surgeons attaining the rank of major in their early thirties.

The organization of the Medical Corps is similar to that of other European armies. Each regiment has from four to six surgeons, and field hospitals from four to seven surgeons, with the usual com-

plement of privates.

The French depend to a considerable measure on their reserve surgeons, and practically all able-bodied medical men are registered. When mobilization comes physicians report first to the commandant of the place indicated on a card every physician carries, then to the chief medical officer for their assignment. At the place of mobilization the physician draws his indemnity of enlistment, amounting to from 700 to 1500 francs, according to rank. The pay for an aide-major of the second class (corresponding somewhat to our rank of captain on the medical staff) is 6.70 francs a day. Half of this can be assigned to a wife, parent or child, a quarter to another person. The leading surgeons in the French hospitals are now at the front, and only the older men, who are unable to stand the hardships of a campaign, are on hospital duty. The Parisian hospitals are being utilized as base hospitals for the army and the older surgeons are carrying out their military duties there.

RUSSIA.

Very little is known of the Russian Medical Corps. It was not highly regarded during the Russo-Japanese war, although it suffered in comparison with the unusually well-qualified medical organization of the Japanese army. While good surgeons, the Russian officers showed a meager knowledge of military hygiene and of preventive medicine.

It is an acknowledged fact that the lessons of that war were well learned by the authorities at Petrograd, and that medical officers have been undergoing a systematic course of study with a view of perfecting themselves in every branch of military surgery. It is believed they are vastly more efficient today than ten years ago, but

as yet they are an unknown factor.

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(In correspondence relative to the Stereopticon Loan Library address the Surgeon General, U. S. Public Health Service, Washington, D. C., and refer to the letters D. Q.)

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The slides are classified by diseases or subjects, the following being the respective divisions of the library:

Alaska.—Eighty-three views depicting living conditions in the Territory of Alaska, the type of villages and the diseases from which the natives suffer.

Children and Children's Diseases.—The various eruptive diseases of children are shown in 50 views. Chiefly of interest to physicians.

Health Exhibits.—Over 90 photographic slides of the exhibit of the U. S. Public Health Service at the Panama-Pacific International Exposition. Many of these views explain the means of dissemination of different diseases, the mortality therefrom and the value of preventive measures. All are original.

Hookworm.—The geographic distribution of the disease, its economic importance, the life history of the parasite, its invasion of human tissue and the resulting effects are demonstrated in a series of over 90 slides.

Indians.—Housing and living conditions among American Indians. Shown in 50 views.

Leprosy.—Forty-five slides depicting the disease. Principally of service to physicians.

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Malaria.—Prevalence of the disease, the malarial parasites, larval, pupal and adult developmental stages of mosquitoes, breeding places, methods of extermination, including oiling, drainage and the types of fish destructive to larvæ; prevention of the disease by screening and the use of quinine; 275 views.

Milk.—Eighty views showing tuberculosis cows, proper and improper stabling, care and treatment of dairy herds, methods of obtaining pure milk, spread of milk-borne epidemics and the value of sanitary measures.

Miscellaneous Subjects.—Sewage disposal, fumigation and cleaning of railway cars, and views relating to Rocky Mountain spotted fever.

Mouth Hygiene.—Twelve slides showing the development of the teeth.

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Rural Schools.—Not yet complete; 10 slides.

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methods of fumigation, the examination of passengers, detention barracks and quarantine procedure; the mental and physical examination of immigrants, types of immigrants and immigration stations; marine hospitals, including the tuberculosis sanatorium at Fort Stanton, New Mexico.

Smallpox.—Ninety slides illustrating the eruptive stages of the disease, the protection afforded by vaccination and the lesions thereof.

Trachoma.—The disease in its acute and chronic stages, and such effects as pannus, entropion and blindness; trachoma among the American Indians and the relief work of the Public Health Service in the mountains of Kentucky are also shown; 120 slides, many of which are colored.

Tropical Diseases.—Incomplete; filariæ, trypanosomes and intestinal parasites illustrated, together with the common infections of the tropics; 40 views.

Tuberculosis.—One hundred slides showing the economic loss from tuberculosis, susceptible races, the tubercle bacillus, pathological conditions in the lungs, the relation of the disease to improper housing and the causes predisposing to infection; also the methods of care, precautions to be exercised and the benefits of sanatorium treatment.

Typhoid Fever.—Of great public health interest. The role of uncleanliness, infected milk, polluted water, improper sewage disposal and flies in the dissemination of the infection; methods of prevention, including proper care of milk supplies, avoidance of water pollution, and the prevention of fly breeding; 350 views.

Yellow Fever.—Mosquitoes in different stages of development, preventive measures, including detention camps; the discoverers of the means of transmission of the disease.

HOW TO USE THE STEREOPTICON LOAN LIRBARY.

The slides are loaned to physicians, health organizations, educators, welfare workers and others without cost. Persons desiring slides should advise the Bureau as to what subjects they are interested in, so that the proper catalogues may be forwarded. The slides should be selected by number and the request made upon the application blank. If desired, the Public Health Service will undertake to make the selection, provided the applicant will state what he wishes to illustrate. There is no arbitrary limit within which the slides are to be returned, but as the demand far exceeds the supply, it is expected that they will be returnd at the earliest possible moment. Stereopticon lanterns are not loaned, but as the slides are of standard size, 31/4 by 4 inches, any lantern may be used. It is expected that slides broken by careless handling or packing will be replaced, these to be ordered from the Government contractor by the U. S. Public Health Service and the bill therefor to be paid by the borrower.

It is requested that in returning the slides a letter of transmittal be forwarded, stating the approximate number of persons to whom the views have been shown. The container should be labeled with the name and address of the sender, and returned by express prepaid or by mail. Photographs, from which it is possible to obtain slides of public health interest, will be gladly received and promptly

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THIS Directory is maintained mainly for the benefit of local firms seeking the patronage of physicians and their families. Only well established and reliable concerns will be represented, and doubtless the space at our disposal will be constantly in demand. In responding to these exploitations, the reader will find it mutually advantageous to mention the MARYLAND MEDICAL JOURNAL.

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HARDLY another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired luster to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Interol.

The necessity for a thorough knowledge of the action of any therapeutic agent before one can secure from it satisfactory results is very strongly emphasized in the case of mineral oil.

It is surprising sometimes to note the erroneous ideas and impressions that are held by both physicians and patients regarding it. One finds it to be often used as if it were a laxative, or even cathartic agent. One hears of it being used to "clean out the bowel," and the complaint often made that mineral oil is too slow to act, or that doctor or patient cannot afford to wait for its action, shows how little its actual modus operandi is appreciated.

Mineral oil is a lubricant, and nothing else—that is, if it be of proper purity to be put into an intestinal canal. Not every oil is "safe"; i. e., unless hyper-refined (which most oils are not). There may remain sulphur compounds or lighter hydrocarbons, which cause unpleasant symptoms, such as nausea, eructations and flatulence, or do serious harm in the way of irritating the kidneys.

Mineral oil acts mechanically, not medicinally.

Hence its effects are slow to appear, especially in cases where lubrication is most needed. Unless the oil be of the correct degree of body, it does not admix with the content of the bowel,

runs through the canal and causes "leakage."

Too much oil is just as bad as too little, and the quantity required in the individual case cannot be gauged in one general plan. That is to say, there is no such thing as a fixed dose. Nor should it be given by "rule o' thumb." The individual dose must be determined and then the dose adjusted to the needs of the individual case. After all, mineral oil should be used only to restore normal action, to train the bowels to act, and its discontinuance should always be kept in mind and sought for after it has done its work.

To discriminating physicians who take nothing for granted investigation will show that, for therapeutc use, there is but one ideal preparation of mineral oil—and that is Interol.

The world is full of fallacies. It is fed upon half-truths. It drinks in sophistry, and then wonder is expressed that the millenium is so long deferred.

Take, for instance, the unfortunate use of the terms "expensive" and "high priced," or of "costly" and "cheap."

Price, be it high or low, is what one pays. It has nothing to do with what is received.

Quality, on the other hand, is what one gets —or fails to get. Service ditto.

A useless or inferior article or service, even when bought for a low price, is expensive and costly!

On the other hand, the better or higher the quality or the service that is obtainable, the higher the price—which is a great natural law. Hence high-priced should and usually does mean high quality or service.

In fact, a moment's reflection will show that the impression created in the mind of a person of average intelligence by the word "cheap" applied to a person or a thing suggests inferiority.

A cheap person or thing is apt to prove the most expensive. A high-priced person or thing usually turns out to be the most economical.

And it is a most important fact that this applies with especial force to therapeutic agents of any kind intended for use by the physician, and with fulminant emphasis to drugs or agents that have to be put into the human body.

The physician who hesitates or is influenced by "high price," provided he knows the reputation and standing of the parties marketing the product, is false to his obligation to himself and to his patient.

All of which applies with especial force to mineral oil, and particularly to Interol.

The Obstipation-Stasis-Autotoxemia Syn-

drome is complex in its etiology as well as in its nosology. Anything that interferes with the caliber of the gut, or with the free passage of intestinal contents through the tube, results in a difficult passage of the bowel contents along the intestinal canal—Obstipation.

This may be a ptosis—or displacement of the gut at some point, a kink—which is a bend produced by a bunch of new-formed tissue—abnormal sagging of suspensory structures, or dislocation of some part of the tube. This, together with abnormal dryness or lack of lubricating material, due to disturbance of the intestinal mucus glands, results in stagnation of the current, stoppage in many instances, a damning back of the current—Stasis.

As a result of these influences opportunity is given for increased bacterial of chemical action, the production of an abnormal amount of toxins—of unusual virulence, irritation and disturbance of the filtering or protective action of the mucous membrane and resulting absorption of increased quantities of poisonous material—Autotoxemia.

As a result of so many factors working more or less interdependently is the establishment of the Syndrome—a complex group of many symptoms that may simulate about any disease or diseased condition met with in medicine or any of its branches.

Furthermore, these conditions, if allowed to go uncorrected, may, and often do, result in serious and even fatal disease.

The ideal treatment for such conditions is lubrication. The ideal lubricant is Interol.

Rachitic Children.

The value of cod-liver oil in rachitis has been so thoroughly demonstrated that there can scarcely be any question on the score of therapeutic efficiency, so the only problem arising in the use of cod-liver oil in rachitis would be on the point of palatability, and if Cord. Ext. Ol. Morrhuae Comp. (Hagee) be adopted, then this is at once settled. Cord. Ext. Ol. Morrhuae Comp. (Hagee) contains the essentials of the crude cil—the elements that give to the oil its well-marked therapeutic and nutritive properties.

A Cod-Liver Oil Preparation That Stands the Test of Practice.

Because of the many inferior forms of codliver oil before the public, the careful physician understands the importance of discrimination when a remedy of this character is to be prescribed. Physicians who demand a pure codliver oil, without medicinal admixture, will find in hydroleine a standaridzed preparation, which fully justifies the professional confidence placed in its purity and efficacy. Hydroleine is the pure oil of native Norwegian cod, prepared by a scientific formula and approved processes. It is thoroughly emulsified, easy of digestion and readily assimilated by the system. Hydroleine is most uniform in strength and character. and is therefore of utmost value whenever a body-builder of definite quality and dependable action is desired. Being extremely palatable, its sphere of usefulness is greatly extended. Children take cod-liver oil in this form without objection, and it is acceptable to the palates of the aged and convalescent. Tested and approved by the medical profession for many years, Hydroleine is one of the few preparations of cod-liver oil entirely free of anything objectionable and which may be prescribed with confidence, for young or old, whenever such medium is required.

Winter Coughs and Colds.

The severe and often intractable coughs of winter colds too often owe their continuance to systemic weakness. To relieve and overcome them it is essential to raise the vitality and nutrition of the whole body. For this purpose there is no remedy so prompt and reliable in its effects as Gray's Glycerine Tonic Comp., and its easily proven efficiency in affections of the respiratory tract—chronic bronchitis, incipient tuberculosis, asthma, laryngitis and catarrhal disease in general—readily accounts for its widespread use by the profession in this class of ailments.

Its regular systematic administration rapidly restores the nutritional balance, and as patients gain in strength and weight usually the most intractable coughs grow less and less and finally disappear.

Whooping-Cough a Serious Disease.

In an address before the New York Academy of Medicine, and reported in the Archives of Pediatrics, issue of August, 1914, John Lovett Morse, A.M., M.D., Professor of Pediatrics in the Harvard Medical School, made this significant statement: "The relative mortality from whooping-cough, scarlet fever and diphtheria is essentially the same throughout the country, whooping-cough being almost everywhere more fatal than scarlet fever and less fatal than diphtheria. * * Instead of being a trifling affair, as it is usually considered to be by the

laity, whooping-cough is a most serious and fatal disease. 'Any disease which kills 10,000 children per annum is,' as Rucker says, 'a serious one. If bubonic plague were to kill that many children in the United States in one year, the whole world would quarantine against our country. A child dead of whooping-cough is just as dead as a child dead of plague.'"

In the same issue of the journal above referred to the editor, an undoubted authority, says that "whooping-cough causes more deaths in children under one year than any other infectious disease."

In view of these startling facts, is it not just possible that the profession at large, like the average layman, has been too prone to look upon whooping-cough as an inevitable concomitant of childhood and to underestimate its seriousness?

The Bordet-Gengou bacillus is recognized as the specific cause of whooping-cough, and the most rational method of treating the disease is by means of vaccine prepared from cultures of this bacillus. It is pertinent in this connection to refer to two such vaccines which are manufactured and marketed by Parke, Davis & Co. One bears the name of Pertussis Vaccine; the other is designated as Pertussis Vaccine, Combined. The first-mentioned vaccine is indicated in cases diagnosed as pertussis, in suspected cases when a definite diagnosis is lacking, and as a prophylactic. The second is indicated in all cases of pertussis, but especially those which have persisted for some time, such infections being usually of the mixed type. The vaccines are administered hypodermically and are supplied in bulbs, in rubber-capped vials and in glass syringes. The various packages are fully described in an announcement which appears elsewhere in this journal under the caption "The Vaccine Treatment of Whooping-Cough." The advantages of the vaccine treatment are succinctly stated in the advertisement, which our readers are advised to consult.

Neurasthenia.

The group of nervous ills which make up the clinical picture of neurasthenia often call for the administration of the bromides. Too great care, however, cannot be used in selecting the preparation to be used, but the physician who employs Peacock's Bromides may rest assured that he is using not only a sedative—and anti-spasmodic—of maximum efficiency, but one that is so pure and free from objectionable action, even when ahministered over long periods, that maximum benefits may confidently

be expected. One to two teaspoonfuls in water every two, three or four hours as required may be relied upon to accomplish the results desired.

Coryza-Acute Nasal Catarrh.

This condition is manifested by a local congestion of the nasal mucous membrane, with an infiltration of serum into the tissues and later an exudation on the part of the mucous membrane.

The local treatment calls for a remedy capable of relieving the engorgement by exosmosis, which can never be achieved by the use of acid or astringent preparations.

The use of Glyco-Thymoline in these cases purges the mucous membrane, relieving the congestion, and then by stimulating the local capillary circulation to renewed activity prevents a re-engorgement.

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bedtime can be depended upon to move the bowels without exciting excessive peristalsis.

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The annual meeting of the Anne Arundel County Medical Society was held at the Emergency Hospital, Annapolis, Md., January 11, 1916. The following officers were elected for the ensuing year:

President—Dr. Charles R. Winterson, Hanover, Md.

Vice-President—Dr. J. Oliver Purvis, Annapolis, Md.

Treasurer—Dr. Frank H. Thompson, Annapolis, Md.

Delegate to the Medical and Chirurgical Faculty of Maryland, State Society—Dr. Thomas H. Brayshaw, Glenburnie, Md.

Alternate Delegate—Dr. James J. Murphy, Annapolis, Md.

Clinical cases were reported by Drs. Brayshaw, Purvis and Winterson and discussed by all present. Dr. Thomas P. Benson of Elkridge, Md., read a paper on "Angina Pectoris."

Those present were the following: Drs. Charles R. Winterson, Thomas H. Brayshaw, Thomas P. Benson, John Collinson, J. Oliver Purvis, S. S. Hepburn, Frank H. Thompson and Frances E. Weitzman.

BIRTHS.

RECENTLY, to Wilbur M. Scott, M.D., University of Maryland Medical School, '12, and Mrs. Scott, of Devereaux, Ga., a daughter.

MARRIAGES.

HARRY ALOYSIUS BISHOP, M.D., University of Maryland Medical School, '12, of Washington, D. C., to Miss Roberta Carson Morgan Jones of Fort H. G. Wright, New York, at Fort H. G. Wright, October 6, 1915. Dr. and Mrs. Bishop will reside at 1430 Rhode Island avenue, Washington, D. C.

DAVID SILBERMAN, M.D., University of Maryland Medical School, '12, to Miss Jennie Merowitz, both of Baltimore, Md., at Baltimore, January 4, 1916. Dr. and Mrs. Silberman will reside at 1729 Linden avenue.

DEATHS.

JAMES WALTER BAIRD, M.D., College of Physicians and Surgeons, '74, of Surry county, Virginia, died at his home near Waverly, Va.,

November 30, 1915, from the effects of a gunshot wound of the head believed to have been self-inflicted, aged 65 years.

Albert Augustus Lindabury, M.D., Baltimore Medical College, '86; Hahnemann Medical College, Philadelphia, '90, of Scranton, Pa., died in the Scranton State Hospital November 22, 1915, from diabetes, aged 53 years.

Josiah Lee McComas, M.D., University of Maryland Medical School, '58, pioneer physician of Oakland, Md.; acting assistant surgeon United States Army throughout the Civil War; a founder and vice-president of the Pan-American Medical Congress; health officer of Garrett county, Maryland, and local surgeon at Oakland for the Baltimore & Ohio System for many years, died at the home of his son in Oakland, Md., December 20, 1915, aged 80 years.

WILLIAM PHILIP SPRATLING, M.D., College of Physicians and Surgeons, '86; from 1894 to 1908 medical superintendent of the Craig Colony for Epileptics, Sonyea, N. Y., and later a practitioner of Baltimore, and professor of physiology and nervous diseases in the College of Physicians and Surgeons, Baltimore, from 1908 to 1909; formerly president of the National Association for the Study of Epilepsy; author of a work on "Epilepsy and Its Treatment"; for the last four years a resident of Welaka, Fla., died in that place December 22, 1915, from the effects of a gunshot wound accidentally self-inflicted while hunting, aged 52 years.

JOSEPH A. MILES, M.D., College of Physicians and Surgeons, '07, of Baltimore, Md., died in the Mercy Hospital, from tuberculosis, December 14, 1915, aged 43 years.

James E. Gauline, M.D. (license, Maryland), for more than 22 years connected with the Home Friendless Society, Waverly, Baltimore, died at his home in that place, from cerebral hemorrhage, December 3, 1915.

James Garrett Linthicum, M.D., University of Maryland Medical School, '59; formerly professor of the practice of medicine in the Baltimore University; a member of the Baltimore City Council for four terms, died at his home in West Baltimore, from pneumonia, December 7, 1915, aged 81 years.

2055

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EDITORIAL SIDELIGHTS ON THE EUROPEAN SITUATION.

The Medical Times.

It may seem a trifle incongruous to calmly write on ordinary medical matters in Europe when the entire world is so stirred by the European war. We feel, however, that people are so surfeited by such an amount of martial news that it may be restful to consider some phases of European medicine in vogue before the outbreak of hostilities. We had hoped to carefully investigate the spas of France and Germany, but as fate gave us the opportunity of witnessing the mobilization of four great armies, we were able to make only cursory examinations, and we must confine our writings in this connection to limited confines.

France boasts three bathing resorts of world-wide reputation—Vichy, Aix-les-Bains and Evian-les-Bains on Lake Geneva. The first is too well known to need description, and we will consider Aix, a place made especially well known to Americans by the great

interest displayed in it by the late J. Pierpont Morgan.

Aix-les-Bains is eight hours south of Paris, and has been famous for its baths since the days of the Romans. There are still to be seen the Roman baths, a temple to Diana and the Arch of Campanus. The city is picturesquely situated between two ranges of the Savoie Alps. Directly behind it loom the mountains. On Mt. Revard, reached by a cogwheel road, is an observatory 2000 feet above sea-level, from which on a clear day we are told Chamonix and Mt. Blanc can be seen. To the south the mountains were covered with their eternal mantle of snow, and in July resembled our Rockies in January. A crowning feature of Aix-les-Bains is its beautiful lake, Lac du Bourget, which adds the final touch to a charming scene.

The city has about 40,000 inhabitants, and is a typical French town, with its two casinos, theaters, fine hotels, shaded, tarred streets which know not dust, fairy-like gardens, in which the fragrant cyclamen is so noticeable, and parks, walks and drives.

Aix has five hospitals. One, the Leon Blanc, named after the chief physician at the baths, was built and equipped by the late Mr. Morgan, who annually took the cure at Aix under Dr. Blanc. He also contributed largely to the erection of the Municipal Hospital.

The center of interest of Aix-les-Bains is the baths, and that means the bathing establishment, L'Etablissement Thermal, a palatial-looking building resting on the lowest buttresses of Mount Revard. Two hot springs give the place its cause for fame. The sulphur spring opens in the establishment, and the other, an alum spring, is 100 yards away. The two seem to have a common origin, we were informed by Dr. A. Goddard, one of the leading physicians of the establishment, and to whom we are indebted for many courtesies, including much of the data given herewith. The water is the most radio-active of France, and the two springs produce 1,000,000 gallons every 24 hours. In addition, there opens in the establishment a cold spring of 500,000 gallons capacity.

The Establishment has a staff of 30 physicians and 200 masseurs and masseuses. The foundation stone was laid in 1776 by King Amedee of Savoie, and the structure consists of two stories and a basement. It has 46 douche (bath) rooms, 7 local douche rooms, 16 vapor bathrooms, three hydrotherapeutic rooms with plunge, 6

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swimming pools, 37 baths and numerous other rooms for treatment. Every hydrotherapeutic method known to science is em-

ployed there.

For internal treatment, the water from three other springs is utilized, as by composition they are especially indicated for cases handled in the Establishment, which are: Chronic articular and atonic gout; rheumatic gout; sciatica and lumbago; chronic rheumatism, sequelæ of acute and subacute articular rheumatism; sequelæ of infective and pseudo-rheumatic (gonorrhæal) arthritis, including certain forms of tuberculous rheumatism; joint affections of traumatic origin; the sequelæ of acute arthritis; hydarthrosis with stiffness or commencing ankylosis; periarthritis; arthrosynovitis and tendinous synovitis consequent upon dislocations, fractures and operations; neuralgia of diathetic origin or a frigore: sciatica, cervicobrachial neuritis; professional cramps, peripheral neuritis of alcoholic origin and otherwise; intensive treatment of syphilis.

Among the secondary indications taken are polyarthritis deformans in its early stages; sequelæ of hemiplegia, spinal paralysis; locomotor ataxia at a stage where specific treatment is indicated, and sequelæ of phlebitis with hard cedema and functional impotency of limb owing to stiffness of joint and muscles. Acute inflammatory joint conditions and cardiorenal conditions are not

accepted.

The question is asked: How is spa treatment carried out? At Aix the thermal treatment is usually taken in the forenoon. The patient is taken from his bed by two porters, who convey him in a closed sedan chair to the Establishment. There he receives the hydro-mineral treatment prescribed by his medical adviser: douche massage, sweating, vapor baths, various douches and baths.

The Aix-les-Bains douche, or douche-massage is administered by masseurs or masseuses. The whole body is massaged, kneaded and rubbed, the patient being meanwhile deluged with a torrent of hot mineral water. This under-water massage usually lasts from eight to 10 minutes, after which the patient is placed in one corner of the bathroom and is given a direct douche from the hose, the pressure and temperature of which are regulated in accordance by the physician. The patient is then wiped dry, after which he dresses and goes for a brisk walk or rests for an hour, or is wrapped in a flannel peignoir and blankets and taken back to bed, where the sweating, initiated in the bath, is allowed to continue for a variable period according to circumstances.

The vapor baths are given in the "bouillons," which are small rooms communicating with those in which the douche-massage is administered. A shower of hot mineral water falls continuously, and as it strikes the floor from a height it produces a sort of hot mist with which the room is filled, at a temperature of about 110 degrees F. Patients who are required to perspire remain there for from 4 to 20 minutes, either before or after the douche-

massage.

In the Berthollet department the vapor baths are either local or general. The effect is produced by a curent of hot moist air obtained by allowing the hot mineral water to fall from a height onto a stone basin, whence the water escapes, but the hot, moist air passes into a large box when intended for general sudation, or into a special drum if for local application. For general sudation

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the patient is seated in a box which is closed except for an aperture for the head to pass through, the whole body being thus plunged in a hot moist atmosphere. For local application the limb is placed in a specially devised apparatus, which allows the hot air to play only on the desired part. The part is often massaged after the vapor bath. This same current of hot sulphurous vapor is employed for inhalation. The baths, properly so called, are given either with pure hot mineral water that has been allowed to cool, the so-called "bains refrigédés" or with the hot mineral water cooled by the addition of cold water. The "submarine" and vaginal douches are always administered at the natural temperature of the mineral water, the patient lying in a bath at an average temperature of 35 degrees C. (95 degrees F.).

In addition to the Establishment there is the Marlioz Establishment, which is devoted to the treatment of chronic diseases of the respiratory organs, such as simple chronic rhinitis, atrophic rhinitis, naso-pharyngeal catarrh, granular pharyngitis, chronic dry pharyngitis, chronic tracheo-bronchitis and catarrh of the larger bronchi, as well as acute blepharitis, chronic conjunctivitis, etc.

Another institution of world reputation in Aix-les-Bains is the Zander Institute, a physio therapeutic institution, under the direction of Dr. Guvenot, who is well-known to American physicians, on account of visits to our medical centers. He is especially interested in electrotherapeutics and in skiagraphy. The institute is completely equipped for mechanotherapy. It has in addition rooms for medicated and carbogaseous baths, Fisher & Kiefer system (Nauheim baths); skiagraphy, radioscopy and radiotherapy; for radiant heat and light baths (dowsing, both local and general), blue light for electrodiagnosis, for electrotherapeutic applications, as faradic, galvanic, undulatory, sinusoidal, static electricity, high frequency (arsonvalization), discharge of condensers, Leduc currents, Morton currents, iosonization, etc., and for vibratory massage. There is a special department for mineral water sprays with patent appliances yielding an integral spray of the mineral water at any temperature and pressure without the intervention of steam and a department for radium emanations, allowing its use in baths so that patients can drink or inhale water laden with radium emanation in definite amount.

The German spas have world-wide reputations. On our itinerary were Baden-Baden, Bad-Nauheim, Wiesbaden, Marienbad and Homburg. The first named, beautifully situated in the Black Forest, is too well known to necessitate a description in limited space. Bad-Nauheim is 25 miles from Frankfort on a slope of Johannisberg in the Taunus Mountains. This beautiful resort is best known for the treatment of cardiac conditions. The waters owe their efficacy to the graduated temperature employed, the carbonic acid gas, salts of calcium and magnesium, and to their radio-activity. The baths are given in increasing strength throughout the series, gas and mineral salts being added to the successive sets which comprise it.

The most ancient and possibly the best known of the German spas is Wiesbaden, the history of which goes back to the early days of the Christian era. It is now a beautifully laid out city of 120,000 people, with wide, shaded streets, spacious houses, fine public buildings and a great kurhaus which is situated in a charm-

ing park, the Kurplatz. The kurhaus is really a great casino.



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Coffee is served on the veranda in the afternoon and crowds gather to sip fragrant café naturel and listen to the music of an excellent orchestra. At the leading thermal resort is a Kochbrunnen, or hot spring. The water resembles weak chicken broth in taste and looks, and contains considerable iron and some sulphur. Up to 40 years ago Wiesbaden was famous for its gambling, but now it is a resort and cure alone, and as such it attracts about a quarter of a million people annually.

Another fashionable and largely patronized spa is Homburg, also in the Taunus Mountains. It has eight salt springs, which are particularly efficacious in the treatment of diseases of the gastro-intestinal tract. Gout and rheumatism are said to suc-

cumb after bathing sufficiently in the waters.

Homburg, though smaller than Wiesbaden, is delightfully situated, and its parks, gardens and drives make it a much-sought-after resort.

What the result of the war will be on the bathing resorts depends largely on the outcome of hostilities. Certain it is, however, that many Americans who annually visit French, German and Austrian spas will not do so next summer, and Saratoga Springs, N. Y., will benefit in consequence. These famous springs, now owned by the State of New York, offer full opportunity for baths and courses of treatment for all the diseases which are treated at the European resorts. It was to insure the maintenance of the springs of Saratoga and make them available to the greatest

number of people that the State took over the property.

Dr. A. W. Ferris, the director of the springs, says: "At Saratoga Springs facilities exist comparable with those at Nauheim. It occupies a central position on a plateau about 25 miles square, averaging 400 feet above sea level in the village and its neighborhood. The soil is sandy loam, clay, sand or glacial drift, and is in general very porous. There is a large proportion of sunny days and the sky has the blue of the open country. The air is unusually fresh, dry and tonic. The Saraghtoghie (Nauheim) baths draw water from Hathorn No. 1 spring. The specific gravity of the water runs from 1.010 to 1.020, with a total of 8,414.73 milligrams per liter of solids in solution, of which 2288.92 milligrams represent the calcium salts, and 1335.59 milligrams represent the magnesium salts, while the various chlorides total 4217.78 milligrams per liter.

"The CO₂ content naturally varies from 1.25 volumes to 1.35 volumes in the water as drawn in the tub at 74 degrees F. Thus the water is superior to that at Homburg and equal to the water at Kissingen or even Brückenau, or at Nauheim itself. No more gas can be held in solution in the water when released in the bath tub than Hathorn No. I mineral water contains naturally. The water therefore is used without any addition of artificial gas, for

any of the series of CO₂ baths.

"The magnesium and calcium salts and the chlorides, all in solution, cause the requisite skin excitation and irritation, initiating the desired flow of blood to the surface. To the later series of the baths, alkali and common salt are added, as at Bad-Nauheim, when the mother-lye, or concentrated solids, are dissolved in the water from the No. VII, No. XII, or XIV Sprudel, the bathing waters of the famous spa of Hesse-Darmstadt.

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obtained at Saratoga Springs as at any locality in the world where CO₂ baths are administered."

H. S. B.

PUBLIC HEALTH SERVICE.

Great things have small beginnings. A spectacle-maker, Jan Leippersheim by name, living in Holland, invented a crude magnifying glass in 1608. Anton von Leuwenhoek, born in Delft, this day 1632, improved this clumsy toy and evolved a compound microscope which has become the most valuable sanitary tool yet devised by man. That first microscope was as far removed from the high-powered instrument of today as is the modern American from the original caveman. Yet by this faulty means, Leuwenhoek, naturalist, physician and botanist, discovered certain minute bodies which he called "little animals." He made drawings of these, and today we know them for those useful friends and malignant enemies of man—bacteria.

We spend our days surrounded by another world, a living world of countless billions, invisible to the naked eye, silent, tireless, destroying the living, consuming the dead, useful in the science and arts, yet often followed by a train of sickness, suffering and death. A curious paradox this, yet bacteria are at once the greatest friends and the fiercest foes of every living thing. Not animals, as Leuwenhoek thought, but vegetables, bacteria consist of two classes, those which prey on living things and those which reduce to their original minerals, fluids and gases every dead thing which they attack. They are of various shapes, round like marbles or straight like little sticks. They grow in clusters, chains and in pairs. They are ubiquitous. The dusty air, the earth and its waters, the interior of animals and plants all contain them. They cause the fermentation of foods, they make cheese, they produce disease, and some of them when killed and injected into an animal protect it against the very disease which they would have produced if living. Many of them live as harmless creatures in the body of an animal for years, only to kill their host when the opportunity presents. Their study has given birth to a science, bacteriology, one of the foundation stones of public health.

Their mere presence does not necessarily produce disease. Recalling the parable of the sower, some bacteria fall by the wayside, some fall upon stony places, and some fall in good ground and bring forth the fruit of suffering, perhaps of death. A normal, temperate life, free alike from the gluttony of idleness or overwork; the sound mind in the sound body; a cheerful, normal environment, these form the stony places in which bacteria take no root. The depraved appetites of mind and body, the dark and sordid atmosphere of penury, the nerve-racking and strength-

undermining trades, these prepare the good ground.

The great weapon against bacteria is cleanliness. The mastery over premature death lies to a great measure in our own hands. Clean persons, clean cities, clean workshops and clean lives are the makers of public health. The United States Public Health Service and other sanitary bodies of this country are gradually bringing these facts home to the general public. In this way cleanliness is becoming more general and the span of life in America is gradually being lengthened. All of which is largely due to the microscope.

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The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired luster to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Restoring the Physiologic Activity of the Bowels.

There are scores of drugs listed in the materia medicas and pharmacopæias which have some direct or indirect action on the bowels. They exert their influence in various waysmechanically, physiologically and medicinally and all have more or less merit, as their use and recommendation go to indicate.

It should be remembered, however, that catharsis and purgation are properly never anything but emergency measures—to be used only "on the spur of the moment" when quick eliminative action is needed; as a consequence of which cathartic and purgative drugs have no place in the routine or systematic treatment of constipation. Gentle stimulation of the bowel, on the other hand, by means of mild but effective laxatives offers the more rational means of treating bowel inactivity, the commonest of the human ills, and should always be called upon when permanent benefits are sought. The

effects of such measures will be prompt and decided, without pain, griping or distress of any kind, and since they are brought about by proper stimulation of physiological processes, they are naturally more prolonged and persistent.

Remedies that can accomplish such results are few and far between. Prunoids is one of the best of them, and its gentle but thoroughly satisfactory action in all forms of constipation, stasis and even intestinal atony, through its influence not only on peristalsis, but also on secretory activity, have made it the remedy of choice for this class of cases by thousands of physicians in all parts of the world. An opportunity to test its value will be given to all physicians who address the Sultan Drug Co., St. Louis, Mo.

K-Y Analgesic.

Most doctors realize that as a symptom, pain has, as a rule, considerable diagnostic significance. Sometimes, at least, if not often, the doctor is apt to overlook one fact, viz.: pain to the patient is a *condition*, not a symptom. He cares less for what it means than to get relief from it.

Hence the doctor is sometimes caught upon one horn of a double dilemma. To relieve pain by ordinary means, *i. e.*, hypodermatic injection or narcotic, given per os, is to satisfy the patient, but mask or alter the meaning of certain symptoms.

If the patient is left to suffer while the case is studied, the diagnosis is favored, but patient and friends resent what seems to them to be neglect. The use of opium or similar drugs to relieve pain is always fraught with danger; it's almost as bad as trying to cut off a dog's tail behind his ears! Nature has provided a means for pain relief or analgesia that deserves more careful and general use. In the arrangement of the sympathetic nervous system the spinal, distributing and reflecting centers lies the explanation of the good effect of counter-irritation and analgesia produced through the skin by local and external application.

And upon such natural physiological rules and working plans is based the action of the Anodyne "First-Aid," viz.: K-Y Analgesic.

Being greaseless and water-soluble, K-Y Analgesic when applied to the skin absorbs rapidly, penetrates deeply, relieves promptly and is more or less prolonged in action and effect. The analgesic agents contained in it—camphor, menthol and methyl salicylate—are active, but non-irritant or toxic, so that K-Y

Analgesic can be applied as often as necessary and in any amount.

It does not stain the skin or soil clothing.

For the relief of headache, neuralgia, rheumatic pains, stiff and painful joints, lumbago, sprains, etc., K-Y Analgesic will be found to deserve a place in the doctor's mind—and in his bag, or on the shelf in his office.

How much good has been accomplished since the adoption of "first-aid" measures the doctor realizes and often has occasion to admit.

Then, since surgical "first-aid" is useful, both to patient and surgeon, why not Anodyne "first-aid"? Bearing in mind that the doctor is not called in, as a rule, until the patient has become alarmed at his or her condition, after simple or home treatment has failed to relieve, or is at the end of the ability to bear pain or discomfort, is it not better to depend upon Anodyne "first-aid" instead of the dose of opiate, narcotic or "coal tar" taken by the patient on his or her own responsibility?

Anodyne "first-aid" refers, for example, to K-Y Analgesic. K-Y Analgesic makes Analgesia attainable by the use of an external application.

Being greaseless and water-soluble, K-Y Analgesic absorbs quickly, differing, therefore, in this important property from grease or oil (the ordinary ointment or lotion bases).

It penetrates deeply, so that real analgesic effect is added to the property of counter-irritation.

It relieves promptly, and, what is most important, its effect is generally prolonged.

Furthermore, being itself incapable of doing harm, K-Y Analgesic can be used ad libitum, and as often as necessity dictates.

It does not stain skin or soil clothing. It washes off quickly and easily.

For the relief of pain, such as neuralgia, headache, rheumatic, or to relieve soreness, such as in sprains, stiff joints, lumbago, etc., K-Y Analgesic will prove a reliable and useful Anodyne "First Aid" to keep the patient comfortable between the doctor's visits and to enable him to attain analgesia without having to use agents internally or hypodermatically whose action might mark important symptoms or modify them so as to obscure or delay diagnosis.

A man does not see with his eyes or hear with his ears.

He sees and hears with his brain.

He also feels pain—with his brain.

Irritation or stimulation, applied to a sensory or even to a motor nerve, is reflected and

transferred to the brain and pain sensation registered. Much pain is referred to some surface area, e. g., the pain in purlatic disease that is felt in the sole of the foot.

Hence counter-irritation, or even analgesia applied over a surface area which is registering pain, has the effect in most instances of relieving that pain.

It is preferable in many cases to secure analgesia by means of external application instead of giving anodynes per os or hypodermatically.

K-Y Analgesic makes such analgesia attainable.

It is, in fact, an Anodyne "First Aid."

By virtue of its contained camphor, menthol and methyl salicylate it is active, yet non-irritant. It does not blister, stain the skin or soil the clothing; moreover, it is water-soluble, can be easily removed and applied as often as may be found necessary. An especially valuable advantage is that it is *greaseless*.

Which assures prompt absorption, deep penetration and quick as well as prolonged action and effect.

K-Y Analgesic is intended for the relief of headache, neuralgia, rheumatic pain, soreness or stiffness of muscles or joints, lumbago, sprains, contusions, etc.

It will prove a valuable aid to be used until the doctor can get in touch with his patient or to keep the latter comfortable between his visits. K-Y Analgesic will prove to be a good investment for the doctor to make; it will save him trouble and annoyance, and secure the gratitude of his patients.

Convalescence.

The secret of prompt recovery from many a serious illness will be found in the prompt institution of tonic treatment. The resulting uplift is often all that is needed to enable the body to re-establish a nutritional balance and develop adequate resistance.

Thus, after the acute diseases, such as typhoid fever, pneumonia, pleurisy, influenza, or those requiring surgical operations like appendicitis, intestinal ailments, utero-ovarian ailments and so on, the return to health often hinges on the thought and care given to restorative treatment. If a reconstructive like Gray's Glycerine Tonic Comp. is used, the result is rarely if ever in doubt. Unlike many remedies used to promote convalescence, Gray's does not whip up weakened forces. On the contrary, it aids and reinforces them by increasing the power and capacity of physiologic processes throughout the body.

Thus the appetite is improved, digestive and absorptive functions are activated and the resulting improvement in cellular nutrition insures a notable gain in vitality and strength. Weakness and debility vanish as vitality and strength appear. This tells why "Gray's" is so useful and effective after the acute diseases.

Estimating Drug's Merit.

In estimating the value of BROMIDIA (Battle) the features that should receive full consideration are its definite therapeutic potency and its freedom from the production of disagreeable after-effects, which latter, unfortunately, so frequently tend to neutralize the therapeutic efficiency of extemporaneously prepared bromide mixtures.

As a result of these advantages of BRO-MIDIA, it has come into wide use as a simple hypnotic agent, especially in those states presenting a marked nervous element. Its marked sedative properties reduce nervous tension, and thus composing the sleepless patient, permit a more prompt and decided hypnotic action, BROMIDIA (Battle) will be found an ideal agent in insomnia, for the rest it produces is refreshing and is not followed by depression or other disagreeable after effects. With a minimum dosage a full sedative influence is exerted. The drugs entering into the composition of BROMIDIA, which need not be given here, for it is generally known, are chosen with the utmost care as to therapeutic power and purity.

BROMIDIA (Battle) is a very practical, matter-of-fact formula, its superiority resting entirely upon purity of components and skill in manufacture. Its present-day wide use has been gained through its meeting severe clinical demands.

Phylacogen in Pneumonia.

Perhaps no disease has baffled medical treatment to a greater extent than has lobar pneumonia. It must be conceded that as yet there is no true specific for the disease. The mortality from this type of pneumonia is high as compared with that of most other infectious diseases. In view of these facts, any agent that nearly approaches the specific in lobar pneumonia should be welcomed by the medical profession. Pneumonia Phylacogen is believed to merit that distinction.

In the use of Pneumonia Phylacogen, as in that of the various other Phylacogens. observance of certain details of administration may have an important bearing on the results. The product may be administered either subcutaneously or intravenously. The first dose should invariably be given subcutaneously. Injections should be made slowly—as slowly as possible, in fact. When injections are made hypodermically the needle should not be allowed to enter the superficial fascia or muscular tissue. Certain patients, it has been found, do not absorb Phylacogen, when subcutaneously administered, with sufficient rapidity to produce the desired effect. Such cases will usually respond promptly to small doses given intravenously.

Large initial doses should be avoided. One Cc. will usually be suitable for the initial subcutaneous dose, and for debilitated persons it is well not to exceed ½ Cc. The increase in dose should be gradual—usually ½ to I Cc. per diem, depending upon the effect of the previous dose upon temperature and pulse-rate, and only when these have again become normal should another injection be made.

The initial intravenous dose, which should always be preceded by one or more doses subcutaneously, should not be more than 1-8 to ½ Cc. (say to 4 minims). Subsequently the dose may be increased by 1-8 to ½ Cc. each day, according to the general indications, avoiding if possible the production of a marked constitutional reaction.

Pneumonia Phylacogen, which is supplied in 10-Cc. rubber-stoppered glass vials, is preserved with an antiseptic, and, with ordinary care, will not deteriorate as a consequence of

exposure due to opening the vial. None of the material need therefore be wasted.

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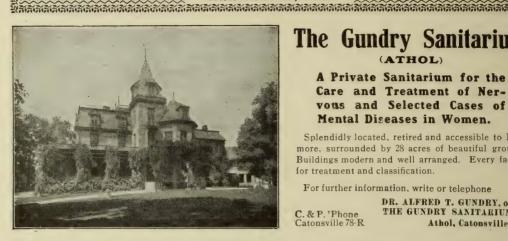
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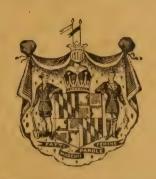
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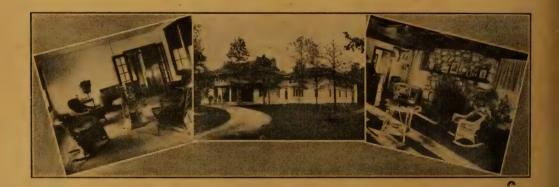
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Haile, both of Jacksonville, Fla., at Jacksonville, December 16, 1915. They will reside at 305 Cedar street, Jacksonville.

ROLLIN B. PAGE, M.D., Maryland Medical College, '05, of Baltimore, Md., to Miss Grace Ball of Easton, Md., at Dennison, Ohio., February 5, 1916. After a wedding trip spent in the West, Dr. and Mrs. Page will reside in Baltimore.

DEATHS.

THOMAS H. SHEARER, M.D., Homeopathic College of Pennsylvania, '58, of 905 N. Charles street, Baltimore, Md., died at his home from an impacted fracture of the neck of the thigh bone, February 18, 1916, aged 90 years.

Jocelyn William Blackmer, M.D., University of Maryland Medical School, '15, of Salisbury, N. C., died at his home in that town February 1, 1916, aged 28 years. Dr. Blackmer was formerly on the staff of the Springfield Hospital at Sykesville, Md.

James McHenry Howard, M.D., University of Maryland Medical School, '69, of Baltimore, Md., died at the Johns Hopkins Hospital, after a lingering illness, January 31, 1916, aged 77 years.

Joseph Aloysius Mudd, M.D., University of Maryland Medical School, '64; a member of the Medical Society of the District of Columbia in 1865; assistant surgeon in the Confederate Army and author of a book recording his war observations and experiences with Porter in Northern Missouri; died at his home in Hyattsville, Md., January 21, 1916, from acute dilatation of the heart, aged 73 years.

Andrew B. Mitchell, M.D., University of Maryland Medical School, '66, died at the Home for Incurables, Washington, D. C., January 20, 1916, from myocarditis, aged 75 years.

CHARLES FARQUHAR, M.D., of Olney, Md., died at his home February 1, 1916, aged 75 years.

George Dwight Kahlo, M.D., Bellevue Hospital Medical College, New York, '91; medical director of the new baths at the Greenbrier White Sulphur Springs, W. Va., and a former lecturer at the Johns Hopkins University, died at Old Point Comfort, Va., February 12, 1916, aged 50 years.

James J. Durrett, M.D., University of Maryland Medical School, '97, a member of the West Virginia State Medical Association, who had been ill as the result of a nervous breakdown, died at his home in Fairmont, W. Va., January 19, 1916, from the effects of a gunshot wound of the head, self-inflicted, it is believed, with suicidal intent, aged 43 years.

JOHN GILBERT SPANGLER, M.D., College of Physicians and Surgeons, '87; a member of the Medical Society of the State of Pennsylvania; of Mapleton Depot, Pa., while going over the Pennsylvania system of Mapleton, January 7, 1916, was struck by a train and killed instantly, aged 55 years.

Henry M. Jewett, M.D., College of Physicians and Surgeons, '88, formerly attending surgeon to the Roger Williams' Eye, Ear and Throat Infirmary, Providence, R. I., and a practitioner of Providence, died at his home in Edgewood, Providence, January 19, 1916, aged 56 years.

Norvel H. Baker, M.D., Baltimore Medical College, '82, formerly a practitioner and druggist of Gillette, Wyo., died in Sheridan, Wyo., January 10, 1916, aged 59 years.

FREDERICK LAWFORD, M.D., University of Maryland Medical School, '00; a member of the Medical Society of Virginia; surgeon to the Norfolk and Southern Railway and Berkley Street Railway; proprietor of the Lawford Hotel and Hospital, Berkley, Norfolk, Va., died at his home in Norfolk, January 24, 1916, from pneumonia, aged 40 years.

WILLIAM G. BRADSHAW, M.D., College of Physicians and Surgeons, '81; postmaster of High Point, N. C.; a druggist, banker and furniture manufacturer; died at his home, January 19, 1916, from cerebral hemorrhage, aged 60 years.

CHARLES L. WACHTER, M.D., College of Physicians and Surgeons, '84, of Sabillasville, Md.; member of the Frederick County School Board until a month ago; director of the Thurmont Bank, died at Sabillasville, February 4, 1916, aged 60 years.

WILLIAM EDWARD MOSELEY, M.D., Harvard Medical School, 74, F. A. C. S., of 614 North Howard street, Baltimore, Md., died at his residence February 10, 1916, aged 67 years.

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ABSTRACTS.

ARE WE EXAGGERATING THE DANGERS OF HIGH PRESSURE?

(Critic and Guide, November, 1914.)

By Tom A. Williams, M.B., C.M., Edin., Washington, D. C.,

Neurologist to Epiphany and Freedmen's Hospitals; Corres. Mem. Soc. de Neurol. et Psych., Paris, etc.

High arterial tension is not itself a great danger, but the agent which produces it is. The author attributes it to hyperproteosis, and the cause of this is the failure of the organism to deal with an excess of protein. Cases are reported showing the efficacy of treatment which limits the proteins and increases the metabolism by proper dietary means. Not all the cases show arterio-sclerosis, or high blood pressure. Vertigo paresthesia, lumbago, recurrent headache or a thick, dull feeling, with incapacity to concentrate, or wakefulness and irritability, or melancholy, may be the chief signs. Alcohol is of little importance in the etiology, except in cases where it produces hepatic or renal insufficiency. Any pressure above 120 is abnormal, even though usual in older people. Anxiety and strain are merely subsidiary factors.

REMARKS ON INTRATHECAL INJECTIONS AS A FACTOR IN THE IMPROVEMENT OF TABETICS AFTER SALVARSAN.

(The Alienist and Neurologist, November, 1914.)

By Tom A. Williams, M.B., C.M., Edin., Washington, D. C.,

Neurologist to Freedmen's and Epiphany Hospitals; Corres. Mem. Soc. de Neurolet Psychiat., Paris, etc.

BOTH on clinical and laboratory grounds the adequacy of intravenous injections of salvarsan, followed by mercury intravenously, intramuscularly or even by inunction, is maintained. Of the author's 60 cases, two especially striking are reported.

A man tabetic for six years has been functionally well for two years, with a reduction of cell count from 38 to 9 after three courses of salvarsan and mercury, totalling six intravenous injections in all. A woman who had been treated for six years for rheumatism, at Clifton Springs and other places, showed great loss of weight and strength, marked ataxia, almost complete loss of pain, vibration and attitude sense of the lower limbs, as well as loss of the tendon and pupil reflexes. She was recommended salvarsan and mercury, against the opposition of several physicians. Seen only a few weeks ago, this patient, although she has had only four periods of treatment of two salvarsans and from four to six weeks of mercurial injections in each, she is perfectly well, of normal weight, save for the lost reflexes and a

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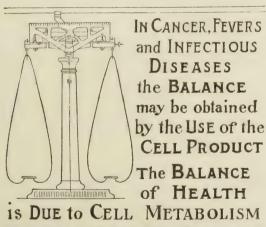
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slight sensory loss in the tibial border of the feet, and can work with enjoyment again.

As no arsenic is demonstrable in the serum used for intrathecal injection, and arsenic is found in the serum after intravenous injection, and as no improvement has followed intrathecal injection unless intravenous injection is employed also, it should be obvious enough that the intravenous injection is the more important procedure. The clinical facts of Sachs and the author show this. The anatomical facts should leave one to infer it; for the disease process, although a meningitis, is deep in the membrane and is chiefly around the vessels, which are nourished not from the cerebro-spinal fluid, but from the blood. Any benefit attributable to intrathecal injections must be due to their topical effect in causing hyperaemia. These considerations show that the method is not specific, and in view of the numerous relapses its superiority is doubtful.

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OBJECTIVE PSYCHOLOGY.

Adolf Meyer, Baltimore (Journal A. M. A., Sept. 4, 1915), remarks on the confusion and lack of agreement in the minds of medical students and teachers as regards the relations of psychology to physiology and pathology. The difficulty lies, he says, in the hesitance to accept a frankly biologic view of the reactions and behavior of man. As soon as mental attitudes and mental activities are accepted as definite functions of a living organism, mentation and behavior is treated as a real chapter of the natural history of man and animal and psychology ceases to be a puzzle, supposedly resisting the objective methods in science. The difficulty will be largely relieved. He specially endeavors to make plain, he says, what is meant by the fundamental assertion that what is important to us is as observable and objective as any other fact of natural history, that is, what is of importance to us is the activity and behavior of the total organism or individual as opposed to the activity of single organs. Each individual has his own mental activity, and to say we cannot see it and make it accessible and understand it in others is a philosopher's scare like the claim that we can never know whether the world exists because we know only mental states or processes. Common sense has never worried about the reality of the world, and the first step in a course of psychology for medical students is to restore in them the courage of common sense. The first condition, Meyer says, for productive work in this field of psychobiology, as in any other, is controlled procedure and methods of description and record and experimentation which come up to definite standards.

COLLICULECTOMY.

A. G. RYTINA, Baltiomre (Journal A. M. A., Jan. 2, 1915), describes his technic of the operation for the removal of the verumontanum, which can be performed, he claims, with less risk of subsequent complication than the use of the cautery and the application of strong silver nitrate commonly used. The descrip-

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tion of the technic requires the illustrations to make it perfectly clear. The operation is radical, he says, and, in allowing the removal of the almost intact verumontanum, enables us to make accurate pathologic studies with the result that a more rational interpretation of the symptomatology and therapy may be anticipated. Of course, the operation should only be carried out in specially selected cases. He describes the anatomy and histology of the parts and of the sinus pocularis, which his studies show is a long canal lined by a many-layered, squamous epithelium ending in the substance of the vermontanum by a complicated system of invaginated processes. The structure is clearly favorable for retention products, and suggests difficulty in eradicating infection, which is the sole cause, as far as seen by him, of pathologic conditions of the verumontanum. His conclusions are as follows: "I. Colliculectomy is a simple operation for removal of the verumontanum. It is less liable to untoward complications and sequelae than strong applications of silver nitrate or the thermocautery. 2. The study of the pathology of the verumontanum is made easy, in consequence of which a therapy will be devised that will be based on science, rather than on empiricism. 3. Surface applications of mild antiseptic solutions seem to be rational. Strong penetrative cauterant substances may have great therapeutic value in curing infections, but may do more harm than good, on account of the production of untoward complications or sequelae. 4. A straight-beaked colliculectome lends itself to removal of vegetation and polypi from any part of the anterior urethra." The article is illustrated.

DISEASES OF THE EPIDIDYMIS AND TESTICLE.*

By Henry H. Morton, M.D., Brooklyn, N. Y.,

Clinical Professor of Genito-urinary Diseases, Long Island College Hospital:
Genito-urinary Surgeon, Long Island College and Kings County
Hospitals and the Folhemus Memorial Clinic, etc.

EPIDIDYMITIS is more frequently seen than orchitis. Causes are gonorrhea, traumatism, passage of urethral instruments, or as a sequel to prostatectomy. The organisms reach the epididymis through the vas deferens by means of its peristaltic action, which moves in either direction.

Causes of orchitis are syphilis, malignant disease or metastasis

during an attack of mumps.

Gonorrheal Epididymitis—Testicle red, swollen, tender, inflamed. The epididymis is enormously swollen, and surrounds the testicle. A small quantity of hydrocele fluid is usually found. Discharge from urethra usually ceases while epididymis is affected and begins again as the inflammation subsides.

Treatment. Preventive—Have patient wear suspensory and keep as quiet as possible. No urethral instruments should be

passed and no forced injections given.

When present the patient should be put to bed, the scrotum supported with a handkerchief bandage, and continuous hot applica-

^{*}Abstract of Clinical Lecture given in the Long Island College Hospital and reprinted from the New York Medical Journal for February 13, 1915.



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tions applied. Hot flaxseed poultices or hot lead and opium work very well.

Cold is no longer used, as it is liable to leave a hard, tough infil-

tration of the epididymis, thereby causing sterility.

In moderately severe cases, accompanied with great pain, 20 per cent. guaiacol ointment covered with cotton and heat usually allays the suffering.

In recurring epididymitis or in very severe cases which do not

respond to treatment, the Hagner operation is indicated.

Where there is a great deal of hydrocele fluid present, aspiration

of the fluid makes the patient comfortable.

Where the epididymis has been blocked as the result of inflammation and the patient sterile, the patent end of the epididymis may be transplanted into the testicle and a new channel for the exit of the spermatoza is made. In about 50 per cent. of cases operated the sterility is relieved.

Tuberculosis of the Epididymis-Begins as a small, painless

lump, which gradually increases in size.

The epididymis is usually infected:

1. By hematogenous infection.

2. By extension from higher up; vesicles, prostate, kidneys. Later the testicle becomes infected, and breaks down and becomes filled with pus.

The focus may remain latent for a long time and then be lighted

up by some traumatism.

Treatment—Epididymectomy is the operation of choice when the testicle is not involved, but when the testicle is affected castration is indicated.

After the patient recovers from his operation he should be instructed to lead an out-of-door life, as ordered in the case of any other tuberculous individual.

ABSTRACT OF CLINICAL LECTURE ON STRICTURE OF THE URETHRA GIVEN IN THE LONG ISLAND COLLEGE HOSPITAL AND REPORTED IN THE MEDICAL TIMES.

By Henry H. Morton, M.D., F.A.C.S.,

Brooklyn, N. Y.

Clinical Professor of Genito-urinary Diseases, Long Island College Hospital: Genito-urinary Surgeon, Long Island College and King's County Hospitals, and the Polhemus Memorial Clinic, etc.

Case I—Male, 45; sailor. Gonorrhea many years ago. External urethrotomy for stricture 10 years ago. No sounds passed after operation. Second external urethrotomy eight years ago. Passed bougie on himself for six months. Admitted to hospital for acute retention with bladder distended to umbilicus. Whalebone guide could not be introduced, so suprapubic puncture was done, and subsequently external urethrotomy without a guide.

Case II—Boy, 16; U. S. Seven years ago ruptured urethra by jumping into milk can. Eight operations have been performed, last one two years ago. Sounds passed every week for one year.

On admittance it was found that a filiform guide was all that



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would pass through stricture. Tunnelled sounds could not be passed because of density of stricture. Operation would probably leave a permanent perineal fistula. Theatment by continuous dila-

tation was decided upon.

The filiform guide was left in place for 48 hours, then a small flexible bougie could be passed. This was left in place for 48 hours, and then a larger size passed and left in the canal. Now the patient wears a 26 flexible bougie. Sounds will be passed from this time till stricture is well dilated.

The urine is voided around the bougie in the urethra.

Remarks on subject of retention of urine:

In retention of urine, bladder is filled, but patient is not able to empty it.

In suppression of urine, no urine is secreted by kidneys.

In rupture of bladder a catheter is introduced into bladder, and little or no urine obtained. A measured quantity of fluid is introduced into bladder, but full amount does not return, as it has leaked out into peritoneal cavity.

Causes of retention of urine are:

1. Stricture, which may be spasmodic or organic.

- 2. Enlargement of prostate due to senile hypertrophy or gonorrheal inflammation.
- 3. Foreign body impacted into urethra, such as a calculus, or something introduced for purposes of masturbation.
- 4. Paralysis of bladder, in acute fevers or due to nervous disorders.

Examination reveals a round, smooth, fluctuating suprapubic tumor, due to percussion. Rectal examination should be made to determine condition of prostate and urethra explored with a steel sound.

Treatment—A spasmodic stricture and oftentimes an organic stricture will respond to a full dose of morphia and a hot sitz bath prolonged for half an hour, but the main dependence in cases of retention is the catheter. In many cases where a catheter cannot be passed a filiform whalebone guide will enter the bladder and a Gouleys tunneled catheter used. Adrenalin solution, because of its property of shrinking the mucous membrane, is sometimes of value, and then the urethra should be distended by filling with olive oil.

After bladder is emptied guide is left in place and stricture is treated either by operation or continuous dilatation.

In cases where a guide will not pass stricture suprapubic puncture or the operation of external urethrotomy must be resorted to.

In cases of retention due to gonorrheal prostatitis urethra should be well irrigated before catheter is passed, so as to lessen chances of infecting bladder. In senile hypertrophy of prostate a catheter should be inserted at once. The bladder should not be emptied entirely in these cases, as it may cause urosepsis and suppression of urine.

Foreign bodies may sometimes be removed with a long urethral forceps through endoscope, but usually a perineal or suprapubic

operation is called for.

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This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

K-Y.

Ask any doctor point blank the antidote for opium, or arsenic, or strychnine, and his answer would be prompt and practical.

But ask him the antidote for physiological friction, and he might hesitate before the word lubrication came to mind.

Nevertheless, lubrication is a word that should suggest much to the doctor, for he needs lubrication—and not only lubrication, but perfect lubrication—every time he uses the catheter, sound, speculum, scope, the examining finger or any instrument of penetration.

Hence Friction's Antidote should suggest K-Y Lubricating Jelly. Nay, more, it should persuade or compel him to have at hand, in his bag and on the shelf, a tube of "K-Y," which is insurance against trouble or annoyance.

K-Y Lubricating Jelly is a perfect lubricant. It is greaseless and water-soluble, which means that it is efficient and convenient. Its essential property is slipperyness and it is not sticky. Neither does it stain the skin or soil the clothing. It is emollient and protective. It is transparent and economical to use.

Consequently it is not only of service for lubricating instruments of penetration, but it serves as an effective dressing or application to burns and scalds. When applied early, taking care to cover all of the affected surface,



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It soothes pruritus even of the most severe kind in many cases, and is useful in dermatitis, urticaria, eczema, irritable ulcers, etc.

One especially valuable use for K-Y Lubricating Jelly is to anoint the skin in scarletina, measles, chickenpox, etc. It protects, allays irritation, and can be used without soiling or staining the clothing of the patient.

K-Y Lubricating Jelly also keeps the surgeon's hands supple, protects against bichloride rash and "protects the feel."

Friction physiologically considered is a thing to be avoided. Its proper antidote is lubrication. The correct form of lubrication calls for slippervness which is not supplied by grease or oil. Furthermore, grease or oil is unpleasant to use and it leaves behind stains or soiled places on the patient's linen, etc.

Instruments of penetration-such as the sound, catheter, speculum, scope or the examining finger-must be lubricated and so perfectly lubricated as to slip easily. To pass such an instrument deftly, quickly, with a minimum of pain or discomfort to the patient, requires perfect lubrication, which, in turn, enhances the manual dexterity and deftness of the operator. Patients are growing to be increasingly critical. They note their physician's attention to the "little things" and judge accordingly. Hence, anything that will add to his skill or deftness must appeal to the doctor, and for that reason he must be interested in K-Y Lubricating Jelly-Friction's Antidote.

This preparation is slippery but not sticky. It is greaseless. It is water-soluble. It is transparent. It is non-irritating. It is convenient to use and economical.

Properties which will recommend it to the discriminating doctor who has his patient's best interests as well as his own at heart. K-Y Lubricating Jelly is also a valuable emollient and protective agent in burns, scalds, bed sores, chafes, dermatitis, urticaria, hives, etc.

It relieves pruritus in the majority of instances, and is exceedingly useful as a soothing and protecting application to the skin of children suffering from scarlet fever, measles, chickenpox, etc.

K-Y Lubricating Jelly also keeps the surgeon's hands smooth, prevents bichloride rash and "improves the feel."

Physiological Friction is of double disadvantage. To the patient it brings discomfort, pain and sometimes severe suffering. It sometimes causes the doctor to lose some of his usual definess and thus impresses his patient that he is careless or not as skilled in manipulation as he might or ought to be.

And Physiological Friction is further to be regretted because it is so easily avoidable in most instances.

A skidding sound hurts, but when well lubricated with K-Y Lubricating Jelly, which is Friction's Antidote, it slips securely along its accustomed or intended track.

A dragging rectal or stomach tube strains the patient's forbearance and often makes the dread of repetition so strong as to postpone or abandon subsequent calls.

An examining finger hurts—unless perfectly lubricated, and the word perfectly does not admit of grease or oily substances.

For grease is not an ideal agent for this purpose; it soils the patient's clothing, prejudices the doctor's reputation for consideration, and marks the user as being unprogressive and careless.

K-Y Lubricating Jelly is Friction's Antidote. Because K-Y Lubricating Jelly is slippery—not sticky—and therefore easily adapted for lubricating instruments of penetration.

It is greaseless and water-soluble, not only clean and easy, to apply, but non-soiling and removable by even cold water without soap.

The very properties that render K-Y Lubricating Jelly a perfect lubricant make it emollient and protective.

Furthermore, K-Y Lubricating Jelly is to a striking degree *soothing*. Applied after a burn or a "chafe" it relieves promptly and hastens healing.

In pruritus—even in severe forms of genital, anal, diabetic, eczematous itching—K-Y Lubricating Jelly will, in a great majority of cases, bring relief, or at least grateful alleviation.

To anoint the skin in scarlet fever, measles, chickenpox, K-Y Lubricating Jelly is not only effective, but convenient and economical, since it can be used without staining or soiling the bed clothes or the patient's linen.

One use in particular will appeal to the surgeon—K-Y Lubrication Jelly makes the hands soft and supple, prevents bichloride rashes and "improves the feel."

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Childbirth is always attended by more or less danger and discomfort. Too often the extra burden a prospective mother has to bear overtaxes her nutrition and strength.

The mother who nurses her baby also fre-

quently has to have supportive treatment to enable her to meet the demand placed on her bodily metabolism by the needs of her growing offspring. At such times of stress effective tonic treatment is always required, and clinical experience has clearly shown that no remedy is so serviceable from every standpoint as Gray's Glycerine Tonic Comp.

Used throughout the later months of pregnancy and during the puerperium, it gives to the mother the exact stimulus and support needed not only to carry her through a trying period but to fit her for the still more exacting one of lactation.

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An Alterative of Long Service.

It is mainly in chronic skin and glandular diseases that alteratives have found their most distinct field of usefulness, for these are conditions aggravated and continued by impaired nutrition and elimination, in the correction of which alteratives show what potent remedial forces they are. Among the alteratives IODIA (Battle) has long enjoyed professional favor and in this will be found a striking demonstration of its value, for no class of drugs are put to a more rigid test than alteratives, so its long-continued use by physicians is the best evidence that it meets the demands made upon it. IODIA (Battle) will show its power in chronic skin diseases, glandular involvements and in other states indicating the corrective influence of an alterative agent. A distinct advantage offered by IODIA is that it may be continued over long periods without causing distress.

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THERE are numerous silver salts on the market. One of the most efficacious of these is believed to be the proteid-silver compound manufactured by Parke, Davis & Co. under the name of Silvol. This product occurs in scale form, has a dark, lustrous appearance, and contains about 20 per cent. of metallic silver. Silvol is slightly hygroscopic, consequently is readily soluble in water. Aqueous solutions of any strength desired may be prepared from Silvol—solutions having this important advantage: They are not precipitated by proteids or alkalis or any of the reagents that commonly affect other silver compounds in solution. More-

over, Silvol solutions do not coagulate albumin or precipitate the chlorides when applied to living tissue.

The use of Silvol is indicated in inflammatory affections of mucous membranes generally. It may be used locally in solutions as strong as 40 per cent. without producing pain or irritation. In acute gonorrhea, as an abortive measure, a 20 per cent. solution may be injected every three hours, while in the routine treatment the injection of a 5 per cent. solution three times a day is recommended.

Silvol penetrates tissue and destroys pathogenic bacteria. It is non-toxic. The product is available in two forms—powder (ounce bottles) and capsules (6-grain), bottles of 50. The contents of two capsules make one-fourth ounce of a 10 per cent. solution. For application to regions where the use of an aqueous antiseptic solution is impracticable, Silvol Ointment (5 per cent.) has been devised. This ointment is marketed in collapsible tubes (two sizes) with elongated nozzle.

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WHILE the course and progress of acute lobar pneumonia is short, sharp and decisive, the impression made upon the general vitality is often profound, and apparently out of proportion to the duration of the disease. Even the robust, sthenic patient is likely to emerge from the defervescent period with an embarrassed heart and general prostration. In such cases the convalescent should be closely watched and the heart and general vitality should be strengthened and supported, and this is especially true as applied to the patient who was more or less devitalized before the invasion of the disease. For the purpose indicated, strychnia is a veritable prop upon which the embarrassed heart

and circulation can lean for strength and support. As a general revitalizing agent is also needed at this time, it is an excellent plan to order Pepto-Mangan (Gude), to which should be added the appropriate dose of strychnia, according to age, condition and indications. As a general tonic and bracer to the circulation, nervous system and the organism generally this combination cannot be surpassed.

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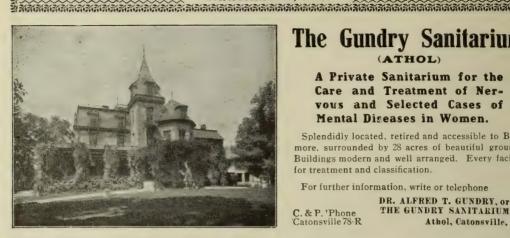
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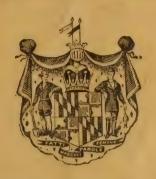
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MARRIAGES.

Frank Martin, M.D., University of Maryland Medical School, '86, professor of operative and clinical surgery in his alma mater, to Miss Elizabeth Prescott Bigelow of Boston, Mass., at Boston, March 1, 1916. After several weeks spent at Palm Beach, Fla., Dr. and Mrs. Martin will reside at 1000 Cathedral street.

ROY DONALDSON McClure, M.D., Johns Hopkins Medical School, '08, of Baltimore, Md., to Miss Helen Keene Troxell of Walbrook, Md., at Walbrook, March 4, 1916. After a Northern journey, Dr. and Mrs. McClue will live in Detroit, Mich., where Dr. McClure is surgeon-in-chief of the Henry Ford Hospital.

Nell M. Pottenger, R. N., Johns Hopkins Hospital, Baltimore, class of 1912, to Mr. L. C. Maxwell of Liberty, Ind., October 18, 1915. Mr. and Mrs. Maxwell will reside in Liberty, Indiana.

FLORENCE M. ANDERSON, R. N., St. Joseph's Hospital, Baltimore, class of 1915, to Mr. Jos. Mitchell, both of Baltimore, Md., at Baltimore, in December, 1915. They will live in Baltimore.

ELIZABETH ROSSITER, R. N., St. Joseph's Hospital, Baltimore, class of 1914, to Mr. John Holmes of Owen's Sound, Canada, at Toronto, Canada, in December, 1915. Mr. and Mrs. Holmes will live in Owen's Sound, Canada.

DEATHS.

Timothy Griffith, M.D., of Frostburg, Md., one of the leading physicians of Western Maryland, a former vice-president of the Medical and Chirurgical Faculty, died at his home March 2, 1916, aged 55 years.

George Lane Taneyhill, M.D., University of Maryland Medical School, '65; a Fellow of the American Medical Association; formerly president of the Baltimore City Medical Society; vice-president of the Obstetrical and Gynecological Society of Baltimore; assistant surgeon of the Eleventh Maryland Volunteer Infantry during the Civil War; major, Medical Corps, Sixth Infantry, Maryland National Guard (retired); formerly president of the National Association of United States Pension Examining Surgeons; one of the most beloved practitioners of Baltimore, died at his home, 1103 Madison avenue, Baltimore, from heart disease, March 2, 1916, aged 75 years.

J. McKendree Kemp, M.D., University of Maryland Medical School, '63, of Welcome, Md., surgeon in the Federal service during the Civil War and thereafter a practitioner of the Western Shore, Maryland, died in the Johns Hopkins Hospital February 18, 1916, from heart disease, following the amputation of the right leg, aged 79 years.

ELISA C. ETCHISON, M.D., University of Maryland Medical School, '74, of Gaithersburg, Md., one of Montgomery county's leading physicians, died in a hospital in Washington, D. C., February 5, 1916, aged 67 years.

William A. Marbury, M.D., University of Maryland Medical School, 'oi, of Sabillasville, Md., formerly demonstrator of histology and embryology in his alma mater, died in Baltimore December 13, 1915, from pulmonary tuberculosis, aged 37 years.

R. C. Buck, M.D., University of Maryland Medical School, '74, of Bristow, Va., died at his residence in that place February 1, 1916, aged 65 years. Dr. Buck was born in Warren county, Virginia, in 1851.

RUFUS H. SMITH, M.D., College of Physicians and Surgeons, '77, a retired practitioner and capitalist, who had resided in Seattle since 1899; for six years chief surgeon of the Great Northern and Columbia and Puget Sound railroads; a member of the Legislature from King county, and president of the Senate in 1903, died in the Seattle General Hospital February 12, 1916, aged 64 years.

PAUL RIDER, M.D., College of Physicians and Surgeons, '11; a Fellow of the American Medical Association and a practitioner of Wardensville, W. Va., died at the home of his wife's parents in Morgantown, W. Va., February 1, 1916, from myocarditis, aged 31 years.

James F. Hughes, M.D., University of Maryland Medical School, '60, surgeon in the Confederate service during the Civil War and thereafter a practitioner of Allegany county, Virginia, died at his home in Clifton Forge, Va., January 31, 1916, aged 81 years.

JESSE J. HALL, M.D., College of Physicians and Surgeons, Baltimore, '82, died at his residence in Morgantown, W. Va., from apoplexy, October 30, 1915.

James T. Jones, M.D., Washington University, School of Medicine, Baltimore, '70, of Jackson, Tenn., died at his home recently, after a brief illness, aged 69 years.

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CONTROLLING CANCER IN ENGLAND.

Portsmouth was the first municipality in England to undertake a public educational campaign for the control of cancer, and it would appear that the measures adopted in 1913 are already taking effect. The annual report of the Medical Officer of Health, Dr. A. Mearns Fraser, for the year 1914, which has just been received, states that there were only 197 deaths from cancer in Portsmouth last year, as compared with 230 in 1913. This decrease, which occurs in the face of an increase of population, is hailed with satisfaction by the Portsmouth sanitary authorities as justifying their efforts to reduce the cancer death rate by persuading persons who are attacked with this disease to avoid delay and to seek treatment before it is too late for more than palliative measures. Dr. Fraser reports that from statements made to him by local medical men the publication of circulars and newspaper articles by the Health Department has been instrumental in inducing a number of persons suffering from early operable cancer to secure treatment, the result of which, it is hoped, will be permanent.

When the educational measures were put in force two years ago the cancer death rate of the city had for a long period been increasing. Twenty years ago the average death rate from cancer in Portsmouth was 6.79 per 10,000 of the population, but in 1913 it had risen to 9.16 per 10,000. In that year the total number of deaths was only 34 less than were caused by tuberculosis. While admitting that the increase in the recorded cancer death rate might have been caused in part by improved methods of diagnosis, the Health Committee of the Portsmouth Town Council nevertheless believed that the present number of deaths was unnecessarily large, and they felt it incumbent to adopt whatever measures might lessen the ravages of the disease. The initiative came from Dr. Charles P. Childe, senior surgeon of the Royal Portsmouth Hospital, and a member of the Health Committee of the Town Council. As early as 1906 Dr. Childe, in his book, "The Control of the Scourge," had given to the public the benefit of his extended experience with cancer. At his suggestion the Portsmouth authorities, in 1913, began a campaign of public education under the official auspices of the Health Department. The methods adopted included the monthly publication in the local newspapers of articles regarding cancer and the printing and distribution of a Health Department circular on the subject. Arrangements were made for periodical lectures to midwives, nurses, and to those engaged in social work in Portsmouth. Health Department further made provision for free microscopical examinations and reports on suspected cancerous growths in order to assist physicians in immediate diagnosis in the case of patients who were unable to pay for such laboratory service. The experience of the Portsmouth authorities had been that by far the majority of patients who presented themselves at hospitals suffering from cancer exhibited the disease in a stage too advanced to be cured. It was held that the reason for this delay in seeking advice was not, as a rule, because patients feared operation, but because they were ignorant that they were suffering from anything serious until they began to suffer pain. The fact that cancer at its onset is almost always painless should be widely realized in order that the public may learn the importance of other symp-

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toms which will enable them to recognize the disease in the early stages, when it can nearly always be successfully removed by competent surgery.

THE CAMPAIGN AGAINST CANCER IN MISSOURI.

The most recent addition to the many agencies, national and local, now engaged in the warfare on cancer is the Department of Preventive Medicine of the University of Missouri. This department has just published in the University *Bulletin* a special article on the early diagnosis and treatment of cancer by Dr. F. A. Martin, instructor in pathology. The purpose of this bulletin is to call the attention of its readers in Missouri and elsewhere to the campaign for the education of the laity, which is being carried on by the American Society for the Control of Cancer, the American Medical Association and other national and State organizations, and to give a brief general survey of the cancer problem

as a phase of preventive medicine.

The knowledge and skill of surgeons in the treatment of cancer has progressed, according to the Bulletin, almost to the limits of what is possible, and if the percentage of cures by this, the only method of treatment which offers reliable hope of cure, is to be increased, the patients themselves must co-operate by seeking earlier diagnosis and treatment. On examining the histories of a large number of cases, it has been found that the patients whom the surgeon failed to cure were those who came to him late in the disease, when the cancer had spread to such an extent that to remove all the cancer cells would have required an operation so great that in itself it would be sufficient to cause the death of the patient. On the other hand, it is found of another group of cases which sought treatment soon after the cancer was noticed that 100 per cent, were cured. To increase the percentage of cases treated early the University Bulletin urges that laymen learn the meaning of cancer and its first warnings, in order that they may go to the surgeon in time, when the cancer is still in the early stages, and the chance for cure is high.

Among the many facts already known about cancer, perhaps the most important is that the disease nearly always begins in some form of abnormal tissue. This abnormal tissue, which is often easily recognized, may have existed for only a few months, or it may have been present from early childhood without causing trouble, only to change into cancer in later life. To these bits of abnormal tissue, or groups of cells, has been given the name of "precancerous lesion." The Bulletin says that not all such conditions develop into true cancers, but most of them should be kept under careful observation by a competent medical advisor, and removed as soon as there is real danger of malignant disease. This is the only known method of preventing, as distinguished from curing, cancer, and the Missouri Bulletin describes carefully the various forms of precancerous lesions which should be regarded with suspicion. Among these are pigmented moles, cracks on the lip, blisters, scabs and similar persisting abnormal conditions of the skin. Probably only a very small proportion of these conditions become cancer, but when moles, for instance, are so located that they are subject to constant irritation, and when in later life they change in color and appearance, and begin to grow, it is time to have them promptly attended to.

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may often be readily traced to imperfect digestion of protein or fat, to a deficiency of total solids in the diet, to a lack of energy, or to a diet containing starchy substances. While this condition is not necessarily a serious one, a natural elimination with soft, smooth stools of a good character is much to be desired, and has no little bearing on the general health of the infant.

The prompt and favorable results following the use of Mellin's Food in constipation is common knowledge to a vast number of medical men, but to physicians who are not familiar with the application of Mellin's Food to correct these errors of diet, we will send, if desired, suggestions which will be found very helpful.

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Moles and warts should never be treated with caustic, but the whole lesion, together with its so-called roots, should be removed. When a burn on the tongue or lip from smoking does not heal within a few months it is a source of danger. Generally speaking, the removal of precancerous lesions is a trivial operation requiring only local anesthesia.

After true cancer has developed it is still possible to cure a large percentage of cases, if the surgeon is given a fair chance while the disease is still local. All cases of cancer are local in the beginning, and may remain so for a few weeks to several months. It is during this period that surgical treatment offers the possibility of practically 100 per cent. of cures. Unfortunately for the patient, pain is so rare at this stage of the disease, and the conditions seem so trivial, that in a great number of cases the opportunity to be saved is forfeited by the delay. In cancer of the breast, for instance, the cases cured by the late operation amount to about 30 per cent., but by an early operation at least 80 per cent. are saved. If every woman who is not nursing would go to a surgeon within 24 hours after she finds a lump in her breast, 90 per cent. of the cases of cancer of the breast would be permanently cured.

Cancer of the tongue is perhaps the most malignant, and cures by the late operation are few in number. If a small ulcer appears on the tongue, consult a surgen at once. When such an ulcer is produced by a ragged tooth, consult a dentist first, and then if the ulcer does not heal within a short time after the cause

has been removed, it is a surgeon's task.

In almost all the common forms cancer is connected with some kind of irritation. Gall-stones, for instance, should be removed, since it is established that from 4 to 14 per cent. of all cases are

followed by cancer.

Cancer of the uterus gives early warning by a discharge of an unusual character at an unusual period, and of unusual duration. The removal of the uterus is not a dangerous operation, and if the disease is recognized at an early stage the life of the patient can be saved.

The *Bulletin* issues an emphatic warning against quacks and their bogus testimonials, pointing out that their method of deception lies mainly in the diagnosis. There are so many conditions closely resembling cancer that the average layman cannot distinguish among them, and it is behind such conditions which are not cancer, and which would tend to heal without treatment, that the "cancer specialists" take their stand and make their false claims.

The Department of Preventive Medicine will supply copies of this cancer bulletin, Medical Series No. 9, upon request to the University of Missouri, Columbia, Mo., as long as the supply lasts.

ENDOWMENT OF \$500,000 TO AMERICAN COLLEGE OF SURGEONS.

THE American College of Surgeons begins the new year with an announcement that it has secured from its Fellows an endowment fund of \$500,000. This fund is to be held in perpetuity, the income only to be used to advance the purposes of the college. By



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this means lasting progress toward the purposes of the college is assured.

The college, which is not a teaching institution, but rather a society or a college in the original sense, now lists about 3400 Fellows in Canada and in the United States. Without precedent for swiftness of development it stands today a powerful factor both in the art and in the economics of surgery.

Primarily the college is concerned with the training of surgeons. But the significant fact in connection with the endowment just secured is that it has come from the surgeons themselves, inspired by a motive for better service to the patient. Ideals in the profession of medicine are living things. Probably no more convincing proof of this fact exists than the sacrifice which the surgeons of this continent have made willingly in order to raise this fund.

To begin with, these ideals are to find concrete expression along

the following lines of activity:

I. Since the whole problem of the training of specialists for the practice of surgery is the primary purpose of the college, the Regents propose at an early date to present a clear conception of the college to the undergraduate medical students of this continent. The Regents, further, will ask each senior student of this group who has in mind to specialize in general surgery or any branch of surgery to register with the college. As these students, then, serve later as internes and as surgical assistants, they will be requested to report these facts to the college. The college, in turn, will systematically seek information as to the ability and character of such men, and the information thus obtained becomes the basis of admission to Fellowship in the college. In addition to this procedure, the Regents will insist upon the proper keeping of case histories, and they will endeavor to stimulate in these men in training right ideals of medical practice. In this program they ask the active co-operation of the faculties of the medical schools and of all practitioners of medicine.

2. Inasmuch as proper training in surgery is inseparably involved with the conduct and efficiency of hospitals, the college will seek accurate data on all matters which relate to hospitals. From time to time it will publish studies upon hospital problems, the purpose being always to be helpful to the hospitals. These publications, further, will inform recent medical graduates as to where they may seek adequate general or special training in surgery. To be concrete, the college will deal with such problems as (a) the proper equipment for medical diagnosis, e. g., well-equipped laboratories for chemical, pathological and X-ray work; (b) the proper forms for case histories and the facilities for keeping these records; (c) the management and the curricula of the nurses training schools; (d) the specialization essential in any well-organ-

ized hospital.

3. The college will ask the faculties of medical schools to consider the advisability of conferring a supplementary degree of proficiency in general surgery and in the various specialties of surgery.

4. The college will issue readable monographs, educational in nature to the press, to the general public, to hospital trustees, and to the profession of medicine upon subjects of medical procedure and the whole meaning of fitness to practice surgery.

The entire impetus of the college springs from within its own



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membership. Necessarily that impetus implies reform. But there is a vast difference between reform preached at men and reform innate in the hearts of men which finds expression at their own initiative. Whatever impetus the college possesses, it originates among the surgeons themselves. It is not an extraneous force or an "uplift" movement. But rather, out of the widely divergent views on many subjects among the Fellows, the aims of the college rise as those time-tried aspirations which are inherently the basis of all that is valuable in the vocation of surgery. The purposes of the college are concerned directly with matters of character and of training, with the betterment of hospitals and of the teaching facilities of medical schools, with laws which relate to medical practice and privilege, and with an unselfish protection of the public from incompetent service; in a word, they embody those ideals which have stood the test of centuries. Upon these the Fellows are united. These are the ideals which each Fellow, singlehanded, has endeavored to foster, and the expression of them today through the college comes as a sort of mass-consciousness of the whole body of Fellows. The splendid fact is that the Fellows have grasped in an instant the meaning of the college by a process of fusion, and they have gladly made sacrifices for its success.

As one comes into wide acquaintance with the Fellows of the college and catches some fair notion of their earnestness, he sees the future of the organization not by means of logic. There is something more subtle and potent than argument. A determined optimism carries a momentum of its own. Without a logical process it seeks concrete expression, and, more than this, it really recreates circumstances through all shifts of weather or play of incident with a certainty not excelled by an utterly rational course. The Fellows of the college, in their widely-scattered districts, fuse their consciousness of the organization with a splendid hope in their hearts to advance all that is important and valuable in the profession. This very attitude of mind is the first promise for the future of the college. It is a promise that admits of no defeat. It is a pledge of loyalty to medical patriotism which means loyalty to the public welfare exercised through intellectual sincerity and scientific accuracy. It means a safeguard to the public, for it indicates where honest and adequate surgery may be found.

HEALTH NEWS BY THE UNITED STATES PUBLIC HEALTH SERVICE.

Who would have thought that the tin can is a menace to the public health? The expert malaria investigators of the United States Public Health Service have found, however, that discarded tin cans containing rain water are breeding places for the mosquito, which is the sole agent in spreading malaria. A hole in the bottom of the empty can might have resulted in the saving of a human life. Certainly it would have assisted in preventing a debilitating illness. Empty tin cans have no business about the premises anyway, but if we must so decorate our back yards, let's see to it that the can has a hole in the bottom.

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Pituitrin is supplied in glaseptic ampoules of I c.c. and ½ c.c. capacity, convenient for hypodermatic administration.

The Elimination of Opium's Untoward Phenomena.

WERE it not for its several disagreeable features which are sufficiently weighty to make one hesitate before employing it, opium, of course, would be the ideal analgesic. Unfortunately, however, along with its analgesic effects, opium exerts those well-known phenomena which tend to limit its usefulness as a pain-relieving agent.

But with the discovery of processes by which it is possible to eliminate the convulsive and narcotic principles of the drug, PAPINE (Battle) became possible, and with a wider therapeutic application than opium.

In the manufacture of PAPINE the several objectionable qualities of opium have been eliminated, the finished product representing the analgesic and sedative properties only of this valuable drug.

In view of this, the superiority of PAPINE over opium and its alkaloids cannot be denied, for, although offering to the patient the positive analgesic properties of opium, it does not at the same time bind up his bowels or subject him to its other disagreeable effects. The utmost care is taken in the manufacture of PAPINE, and it is fully believed that it offers every possible advantage over opium.

The Test of a Tonic.

The field and function of a systemic tonic is generally understood and appreciated by both physician and patient. To stimulate, whip or goad the vital processes is not to "tone," but, on the contrary, to ultimately depress. A real tonic is not a mere "pick-me-up," but some agent that adds genuine strength, force and vigor to the organism. The genuine tonic is a builder or reconstructor of both blood and tissue. Any agent which will increase the power of the blood to carry and distribute the life-

giving oxygen is a tonic in the best and truest sense of the word. Iron in some form is an ideal tonic, as it builds up the vital red cells of the blood and the hemoglobin, which is their essential oxygen-carrying element. Of all forms of iron, none is quite as generally acceptable and readily tolerable and assimuable as Pepto-Mangan (Gude). It creates appetite, tones up the absorbents, builds the blood, and thus is a real tonic and reconstructive of high order. It is especially desirable because of its freedom from irritant properties, and because it never causes a constipated habit.

The Pneumonia Convalescent.

While the course and progress of acute lobar pneumonia is short, sharp and decisive, the impression made upon the general vitality is often profound, and apparently out of proportion to the duration of the disease. Even the robust. sthenic patient is likely to emerge from the defervescent period with an embarrassed heart and general prostration. In such cases the convalescent should be closely watched and the heart and general vitality should be strengthened and supported, and this is especially true as applied to the patient who was more or less devitalized before the invasion of the disease. For the purpose indicated, strychnia is a veritable prop upon which the embarrassed heart and circulation can lean for strength and support. As a general revitalizing agent is also needed at this time, it is an excellent plan to order Pepto-Mangan (Gude), to which should be added the appropriate dose of strychnia, according to age, condition and indications. As a general tonic and bracer to the circulation. nervous system and the organism generally, this combination cannot be surpassed.

The Reasons

why Gray's Glycerine Tonic Comp. should be employed in la grippe are numerous and strong. First of all, this remedy has proved its unique value in every epidemic that has occurred in this country. It fulfills pleasantly, effectively, scientifically-the ever present need for supporting tonic medication: it fortifies the system and enables the patient to withstand the ravages of the disease. One other exclusive feature of Gray's Glycerine Tonic Comp. is that it has a universally acknowledged specific influence upon the respiratory and nervous symptoms of la grippe-it palliates these symptoms -always-without the necessity of disturbing the stomach, depressing the heart and befogging the mental powers, with cough syrups,

antipyretics and narcotics. It is a well-proven fact that if Grav's Glycerine Tonic Comp. is employed in la grippe there is no necessity of administering the usually employed large doses of analgesics and antipyretics; moreover, the danger of exhausting sequelæ is reduced to a minimum or entirely obviated. In short, Gray's Glycerine Tonic Comp. not only simplifies the treatment of la grippe, but robs it of most of its distressing features and dangerous complications. As a supporting reconstructive agent in convalescence from influenza no remedy acts so effectively as Gray's Glycerine Tonic Comp. It enables the patient to eat, digest and assimilate food, imparts vitality to the nervous system, restores constitutional vigor so that the system is fortified against the occurrence of complications and sequelæ.

The above statements are based upon the recorded experience of numbers of physicians who invariably employ Gray's Glycerine Tonic Comp. as a routine remedy in epidemic influenza or la grippe.

Doses: Adults two teaspoonfuls to a tablespoonful in water before meals (or after meals when preferred) and at night on retiring; children in proportion.

"In Particular Cases."

THERAPEUTIC efficiency in the use of the bromides is often as dependent on the avoidance of untoward effects as on the attainment of maximum physiologic activity. For this reason Peacock's Bromides offer the most satisfactory bromide therapy, for not only does this happy combination of carefully selected bromide salts insure all the benefits of the most active bromide preparation, but it does so with the great advantage that gastric disturbance and all tendencies to bromism are reduced to a minimum. This is why in "particular cases" so many physicians are in the habit of insisting on the use of Peacock's Bromides.

When the Stomach Is Tired or Lazy.

THE artificial digestives, such as pepsin, pancreative papain, etc., have their place in modern therapy, but they should always be used with care and common sense. How often do we encounter patients who are continually dosing themselves with pepsin or some one of the artificial digestives after each meal? Ninetynine times out of a hundred this is unwise and a positive harm. Instead, the process of digestion should be encouraged—the stomach urged to do its own work—for any remedy that will specifically stimulate these functions to nearer

normal action will produce permanent benefits that can never come from pepsin. Seng is such a remedy with a well-defined secernent action on the glands and mucous membranes of the stomach that enables it to restore and increase the functional activity of an organ that in the great majority of instances is only over-tired or indolent.

The increasing knowledge of endamebas and their relation to infections and other pathological conditions calls for an extension of ipecac therapy. The alkaloids of ipecac are specific for the endamebas and quickly destroy all motile forms, but if given by mouth they cause great nausea. The hypodermatic injection of emetine is efficient but time-consuming, frequently painful and expensive.

Alcresta Tablets of Ipecac, Lilly, have made it possible to administer the ipecac alkaloids by mouth in massive doses without causing vomiting or nausea. These tablets are uncoated and disintegrating, but do not liberate the alkaloids until the compound reaches the alkaline intestinal juices. Thus vomiting and nausea are avoided. Both physicians and dentists are using these tablets with much success in dysentery and pyorrhea, and also in many affections that are known to have their source in local foci of infection.

A Rare Reputation.

A RARE reputation among soothing and soporific agents has been earned by PASADYNE (Daniel)—the concentrated tincture of passiflora incarnata. This enviable reputation has been gained by PASADYNE (Daniel) because of its potency of therapeutic effect coupled with its marked freedom from disagreeable influences. Even in moderate dosage its tranquilizing power becomes manifest. A sample bottle may be had by addressing the laboratory of John B. Daniel, 34 Wall St., Atlanta, Ga.

The Prophylactic Importance of Effective Correction of Liver Disorders.

In connection with the modern tendency of medical practice to anticipate many human ills by instituting prophylactic treatment as soon as their possible occurrence is suspected—or, to perpetrate a bull, by "treating them before they begin"—it is especially interesting to note the growing recognition of the part played by the liver in the causation of many common affections. That the liver is an all-important factor in the etiology of no small proportion of the metabolic disturbances, intestinal derangements

and so-called auto-toxic disorders, is becoming more and more apparent as the physiologic functions of this great organ are given more careful attention and study. Moreover, as facts unfold, it is very evident not only that the importance of the liver has not been fully appreciated, but that prophylactic treatment to accomplish, with any degree of efficiency, the prevention of the ills referred to, must be directed primarily and principally to restoring and promoting the activity of the hepatic functions.

For many years the principal agents for attemping to restore the functional activity of the liver and regulate the portal circulation have been the hydragogue cathartics. In certain conditions these have been serviceable and more or less effective, but in many others they have proven valueless and even harmful, because of the exhaustion and depression resulting from the incidental catharsis.

In any comprehisive or effective scheme of prophylaxis of the affections due to insufficient or perverted hepatic activity the great desideratum is, therefore, to correct the liver condition without producing catharsis or purgation. The remedies that are able to meet this demand are very limited. In Chionia, however, the medical profession have a preparation of Chionanthus Virginica that can be relied upon to exert a prompt stimulating and corrective effect on the liver without setting up a severe and drastic action of the bowels. The possibilities of such a product must at once be apparent. Certainly clinical experience has demonstrated its therapeutic utility, for under its use the functions of the liver are promptly restored to the normal, with all that this essentially means on metabolic processes in general, the elimination of toxic wastes and the regulation of the bowels. The use of Chionia, therefore, through its potent influence on the liver, affords a dependable means of preventing many ills that all too often lead to serious and prolonged invalidism.

W. B. Sounders Company 1916 Catalogue.

W. B. Saunders Company, publishers, of Philadelphia and London, have just issued their 1916 eighty-four page illustrated catalogue. As great care has evidently been taken in its production as in the manufacture of their books and showing you by speciment cuts, the type of illustrations used. It is really an index to modern medical literature, describing some 300 titles, including 45 new books and new editions not in former issues.

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Owing to the war conditions and our inability to obtain sufficient supplies from abroad, which has caused a shortage of our product, Pepto-Mangan, we take pleasure in announcing to our patrons that in the future this product will be American owned and controlled. Our new laboratory is now in operation and a plentiful supply of Pepto-Mangan will be available on or before the 1st of April. This preparation will be exactly the same as heretofore, and there will be no change in the price.

Tissue resistance—that's the whole story. Following pneumonia or a severe bronchitis, the patient drops into chronic invalidism or slowly climbs back to health. The deciding factor is tissue vitality. Possibly the damaged tissues may have a little recuperative power left—enough to make the climb, but why take a chance?

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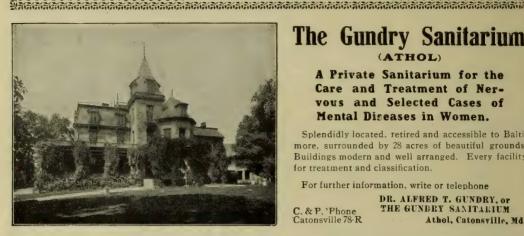
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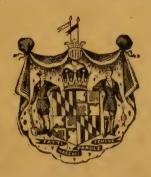
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USEFUL AT ALL SEASONS AND FOR PATIENTS OF ALL AGES.

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Quickens the appetite.
Stimulates gastric activity.
Promotes assimilation.
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the accommodation of the patients. The work of the hospital is almost entirely charitable, and treats a class of patients not usually received in other hospitals. The establishment of a free dispensary in connection with the hospital is proposed at an early date.

Dr. Howard D. Lewis announces the removal of his offices to the Normandie Apartments, 2600 block St. Paul street, first floor. Office hours, 9-10 A. M. and 7-8 P. M. Phone, Homewood 1406.

Dr. Harry F. Shipley, Granite, Md., who has been under treatment for kidney trouble at the Mercy Hospital, is very much improved.

ENGAGEMENT.

The engagement is announced of Dr. M. L. Lichtenberg, University of Maryland Medical School, '12, for several years resident physician of the University Hospital, now practicing at 1638 N. Monroe street, to Miss S. S. Sagner, of 2555 McCulloh Street. Dr. Lichtenberg has done much and varied work in the different specialties, and great things are expected of him, his friends believing he will be very successful.

MARRIAGES.

Austin H. Wood, M.D., University of Maryland Medical School, '14, of Baltimore, Md., to Miss Zelda Treece, of Shy Beaver, Pa., at Shy Beaver, March 16, 1916.

ARTHUR L. FEHSENFELD, M.D., University of Maryland Medical School, '09, to Miss Doris V. Thomas, both of Forest Park, city, at Forest Park, April 1, 1916. Immediately following the ceremony, Dr. and Mrs. Fehsenfeld left for a tour of the North.

GROVER AUGUSTUS STEM, M.D., University of Maryland Medical School, '12, of Westminster, Md., to Miss Irene Miller, of Baltimore, Md., at Baltimore, in September, 1914.

Lewis A. Sexton, M.D., Vanderbilt University Medical Department, Nashville, Tenn., '06, of Baltimore, Md., formerly of New York, second assistant superintendent of Johns Hopkins Hospital, to Miss Henrietta Stenz, of New York City, at New York City, April 19, 1916. Dr. and Mrs. Sexton will make their home here at the Tudor Apartments, Baltimore.

DEATHS.

Otto Magruder Muncaster, M.D., University of Maryland Medical School, '66, of Washington, D. C., died at his home in the Beacon

Apartments on or about April 2, 1916, following a short illness, aged 73 years. For the past 45 years, Dr. Muncaster had been practicing in Washington and was in active practice until five days before his death.

EDWARD WACHTELL PALMER, M.D., Baltimore Medical College, '02, of Greencastle, Pa., a member of the Chambersburg Hospital staff and Franklin County Medical Association, and president of the Greencastle School Board, died in the Chambersburg Hospital, April 17, 1916, following an operation for appendicitis, aged 46 years.

GEORGE A. STRAUSS, SR., M.D., College of Physicians and Surgeons, '83, of 13 East Montgomery street, Baltimore, Md., died at his residence after a long illness from heart disease and dropsy, April 5, 1916, aged 59 years. Dr. Strauss was not in active practice, having retired three years ago.

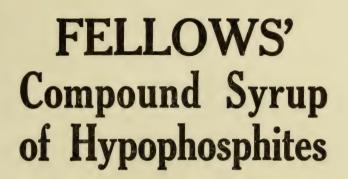
Thomas Hugh O'Connor, M.D., College of Physicians and Surgeons, '93, of Roxbury, Boston, a Fellow of the American Medical Association; for ten years police surgeon at Roxbury Crossing, Boston, and since 1911 a school physician and medical inspector in the Division of Communicable Diseases of the Department of Health; for several years a member of the staff of the Children's Hospital; fell on the ice near his home March 19, sustaining a fracture of the skull, and died from cerebral hemorrhage March 30, 1916, aged 49 years.

EMORY BURR HUYCK, M.D., Baltimore University School of Medicine, '95, of Oak Harbor, Ohio; a Fellow of the American Medical Association; coroner of Ottawa County, Ohio; for fifteen years local surgeon of the Lake Shore and Michigan Southern Railway, and chief surgeon of the Toledo, Port Clinton and Lakeside Company; health officer of Oak Harbor for twenty years; died at his home, March 20, 1916, from nephritis, aged 53 years.

ROBERT S. HART, M.D., Washington University School of Medicine, Baltimore, '69, of Pisgah, Ky.; a member of the Kentucky State Medical Association; a Confederate veteran; for more than forty years a practitioner of Fayette and Woodford counties; died at his home, March 21, 1916, from heart disease, aged 72 years.

ROBERT H. HOGE, M.D., College of Physicians and Surgeons, '73, of Hoge's Store, Va.; for many years chairman of the Board of Health of Giles County, Va.; died at his home, March 7, 1016, aged 64 years.

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ATTENTION, THE S. P. C. S.!

THE Federal Trade Commission has sent to Congress a preliminary report on the rise in the price of gasoline. It draws no conclusions, but presents masses of statistical information.

Among the items noted in the press summary are:

Production of crude oil remained virtually stationary; gasoline contents of crude oil decreased; exports of gasoline increased from 188,000,000 gallons in 1913 to 238,500,000 gallons in 1914 and 284,500,000 gallons in 1915; for its 62 per cent. of the gasoline produced the Standard Oil Company charged about I cent a gallon less than the "independents" charged for their 38 per cent.

The last item ought to move the Society for the Prevention of Cruelty to Statesmen to do something. Consider the hard lot of the member of Congress with a large constituency of automobile owners. Confronted with angry complaints about the "high price

of gas," he is deprived of his old familiar explanation.

He cannot dismiss the complaints with the classic vituperation of the "trust"—the "octopus"—for here is the Federal Trade Commission with its cold-blooded price tables! Truly, the way of the statesman who deals in oratory meant only "for Buncombe County" grows harder every day.

WILLS HOSPITAL OPHTHALMIC SOCIETY.

Meeting of October 4, 1915.

Dr. McCluney Radcliffe, Chairman.

Dr. William Campbell Posev exhibited the following:

1. A Case of Traumatic Ptosis Operated on by the De Wecker Method.

The patient, a young man, had had the left upper lid torn away by a steel hook. When first seen after the accident, all but the outer third of the lid was evulsed. His family physician had sewn the lid roughly into position directly after the accident, but when first seen by Dr. Posev the lid was a shapeless mass, hanging down and over the lower lid. Dr. Posey's first procedure was to cut away all superfluous cicatricial and granulation tissue, and to reunite the edges of the wound. After the healing due to this had been effected, the lid was raised by a Tansley-Hunt operation. On account of the injury to the tissues, this operation was only partially successful, the width of the palpebral fissure being but 4 mm., so a De Wecker operation was done, the subcutaneous stitches being held in position for two weeks. The ultimate effect was excellent, the fissure being now 7 mm. in size. It is thought that the effect of the operation will be increased as time goes by, as the subcutaneous cicatricial bands produced by the sufures contract.

2. Exhibition of a Case of So-called "Juvenile Glaucoma."

The patient, a young man 22 years of age, without any family history pointing to glaucoma, had gradual loss of vision in each eye for a year or more. Examination showed atrophic nerves with deep glaucoma cups. Tension equalled 28 in each eye. The form fields were much contracted and the color fields obliterated. Vision was reduced to 2/40 in each eye. Iridectomy was performed on both eyes under ether, with resultant •4/40

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Sig. 2 cubes 3 times a day, one hour after meals. Chew the cubes.

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vision in each eye. Dr. Posey thought the etiological factor was probably alcohol, as the patient confessed to taking four or five drinks daily for six years or more. There was also a possibility of his having taken wood alcohol. Dr. Posey believed the glaucoma to be really an instance of the secondary type of this disease, the glaucoma cups having originated in consequence of the softening of the optic nerves from the alcohol, and perhaps an accompanying low-grade uveitis due to the same causes, which had produced a blocking of the posterior lymph passages of the eye.

3. Deformity of the Right Upper Lid Due to Traumatism.

Dr. Posey exhibited a case of deformity of the right upper lid in a young man which he had corrected by a blepharoplasty. The deformity was the consequence of a kick upon the orbit. The inner canthus of the right eye had been contracted downward and somewhat outward, so that the upper lid assumed the appearance of a very broad epicanthal fold. The canthus was placed in the proper direction by incising the scar tissue and sewing it in the position normally occupied by the palpebral ligament. The broad epicanthal fold was narrowed by excising a semilunar strip of skin. Healing was prompt, and the deformity caused by the accident almost entirely corrected.

A Case of Pigmentary Degeneration of the Retina Complicated by Acute Glaucoma.

Dr. William Zentmayer showed a case of advanced pigmentary degeneration of the retina in a woman 58 years of age. There was a posterior polar subcapsular opacity in the lens. The unusual feature in the case was a high degree of sclerosis of the choroidal vessels. Vision in the right eye equaled 6/24; in the left there was merely light perception. The field in the right eye showed concentric contraction to within 15 degrees of fixation. One week before coming under observation she had had an attack of acute glaucoma, which was aggravated by the use of atropin by her family physician. The eyeball was stony-hard, and all the other phenomena of suddenly increased intraocular tension were present. Trephining of the sclera, combined with a small peripheral iridectomy, was done. The tension three weeks after the operation was still below normal. The patient recognized hand movements at 1 m. Glaucoma as a complication of pigmentary degeneration of the retina has been observed several times. Instances have been put on record by Heinrichdorf, Bellaminoff and others. Both chronic and acute types have been seen. The reason for the rise in tension has not been determined. In the above case it is probable that the high-grade sclerosis of the choroidal vessels was a factor. A sclerosis that had affected more largely the vorticose veins than the arteries would explain the attack of glaucoma.

A Case of Buphthalmos Benefited by Tuberculin.

This case was presented by Dr. J. Milton Griscom, who said that the patient, a girl of 12 years, had applied to Wills Hospital for treatment August 27, 1915. Vision in the right eye was 8/200. Blepharitis marginalis and interstitial infiltration of the cornea were found, with a central macula (1 mm.) and some

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vascularity. The anterior chamber was somewhat deepened. The iris was normal, and the pupil reacted promptly. No fundus details could be seen. In the left eye there were light perception and projection. Buphthalmos was present. The cornea was large, with a central macula (3 mm.) and some vascularity. There was marked interstitial infiltration. The anterior chamber was deep. The iris was normal in color and 13 mm. wide. The pupil was sluggish. No fundus details were visible. There was slight scleral injection, also ciliary stretching. equaled 43 mm. mg. Blepharophimosis was present, with slight roughness of the conjunctiva. There was also lachrymal obstruction. The urine was negative. The family physician stated that the condition has existed for nine years. He thought that it had followed an attack of measles complicated with a tubercular element. The patient's father had died of tuberculosis, and her cervical glands were enlarged. The attack of measles occurred nine years before admission. She had been treated by various oculists at a New York hospital, with no improvement in the condition of the eyes. She was admitted to Wills Hospital on the 3d of Septmber, and was operated upon under ether, an external canthotomy with rapid dilation of the tear duct being performed on both eyes. The Von Pirquet test was positive. Ten injections of tuberculin, 1/50 mg., were given, and 10 injections of phylacogen, 2 c. c. The house tonic was prescribed. Eserine, gr. i, was instilled into both eyes. The ocular condition gradually improved, and also the general health. Both cornea became clearer, and the left globe perceptibly smaller. There was a slight reduction in the size of the cornea and the depth of the anterior chamber. When discharged, November 10, the iris was 12 mm. wide, and the corrected vision as follows: Right eye, sphere plus 2.25 equals 20/70; left eye, sphere minus 0.75 D combined with cylinder minus 1.25 D, axis 30 equals 20/100.

A Case of Proptosis Due to an Orbital Tumor.

Dr. James Hunter, Jr., presented this case. The patient, a married woman 47 years old, had had, in September, 1913, an attack of severe pain over the left eye, associated with headache. The attacks would commence in the morning, reaching their maximum intensity about o A. M., and would compel the patient to take to her bed. The pain would last until about 4 P. M., when it would ease enough to permit her to resume her usual work. She had sought medical advice, with little or no relief, the pains becoming steadily worse. In August, 1914, there was pain, confined to the globe. The eve began to swell, and there was marked edema of the lids. The latter was at first relieved by cold compresses, but soon became permanent. The patient applied for treatment May 24, 1915, with much the same appearance as she presented when exhibited by Dr. Hunter at this meeting, but the globe was then not quite so prominent. She had ptosis, palpebral fissure at the mid-pupillary line, and a pupil of 4.5, which reacted promptly. There was diplopia on extreme upward rotation. The tumor mass above the eyeball, to the nasal side of the orbit, was more prominent when the patient was shown than it had been on admission. Examination of the fundi was negative. The tumor was apparently one of slow growth, springing from the periosteum of the nasal side of the orbit, 15x20 mm., with a soft point of



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apparent fluctuation at its temporal edge. An X-ray of the snuses was negative.

J. MILTON GRISCOM, M.D., Secretary.

PNEUMONIA.

TEN per cent. of the deaths in the United States result from pneumonia. It is estimated that during the past 30 days this rate has been doubled in some sections. Tuberculosis and heart disease, each causing one-ninth of all fatalities, are the only diseases which outrank pneumonia among the legion of the men of death, but in certain cities pneumonia is steadily increasing, and even has surpassed the mortality from tuberculosis. Seventy per cent. of all cases occur between December and May. It is distinctly a cold-weather infection, seemingly brought by wintry blasts, but especially prevalent during the winter season only because its victims are rendered more susceptible at that time by exposure, debilitating influences and the presence of predisposing infections.

Pneumonia principally affects those at the extremes of life, but no age is exempt. It is invariably a germ disease. The predisposing and exciting organisms are so numerous that it would be futile to attempt their enumeration. Many of them are constantly present in the mouths and throats of healthy persons, and it is only through the aid which we unwittingly extend to them that they are transformed from harmless organisms to one of

man's most powerful enemies.

The presence of other diseases is the great predisposing cause of pneumonia. They prepare the soil for invasion. Holding first rank in this category is influenza, the increased incidence of pneumonia at this time being largely due to the present epidemic of la grippe. Individuals suffering from this infection are peculiarly susceptible to respiratory complications, and should properly observe every hygienic rule. Inflammation of the upper air passages, pharvngitis, bronchitis and tonsillitis often predispose to the development of the disease, particularly among the aged and infirm. The acute contagious diseases of childhood, more especially measles and whooping-cough, frequently prepare the way for pneumonia. Anyone who, through neglect or carelessness permits the spread of these infections, is therefore open to the severest condemnation. Exhausting disease of whatever nature is often sufficient to so reduce our resistance that we are unable to cope with organisms which should be easily overcome, and hence predisposes to the infection.

Debility, either temporary or chronic, developing from any cause, increases susceptibility. Because of this the disease most often attacks those at the extremes of life. Among debilitating influences must be mentioned cold, exposure to penetrating winds and the chilling of body surfaces as a result of wetting. The combination of lack of food and fatigue proves particularly disastrous during the winter season, and is a condition to be avoided whenever possible. Bad housing, mental or physical harassment and overwork are alike the advance agents of the infection. Overcrowding in street cars, theaters and other public places is unquestionably in part responsible for the spread of pneumonia in cities, as far greater opportunity is thus offered for the dissemination of the predisposing diseases through indiscriminate cough-



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a location or practice, if you desire an assistant, or to be an assistant, if you have any office equipment which you wish to sell or exchange, you can reach more physicians in the State of Maryland through the MARYLAND MEDICAL JOURNAL than in any other way. Rates, \$1.00 per inch. Twenty-five cents extra if replies are sent through the Journal. Cash, in advance, must accompany copy.

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1801 Lovegrove Alley Bet. Charles and St. Paul Sts. BALTIMORE, MD. ing and other means of droplet infection, as well as the directly injurious effects which inevitably result from exposure to such environment. The overheating of rooms is also seemingly harmful. Promiscuous expectoration may be, and probably is, a factor in infection, and consequently should be avoided by every citizen. A remaining most important agent should be mentioned—alcohol. It is in truth the handmaiden of pneumonia, and there is none more certain or more sure of success, especially if liberally and continuously used.

While the foregoing facts constitute in part our knowledge of the reasons for the widespread dissemination of an infection which carries with it a mortality or from 10 to 30 per cent., it should be remembered that our scientific data are not yet complete. There are problems connected with immunity, predisposition and the occurrence of epidemics which are yet to be solved. It is known that pneumonia frequenty attacks those who are perfectly well and who apparently have observed every hygienic rule. Whether this is due to the increased virulence of the organism or to other causes is unexplained. It is, however, recognized that avoidance of the factors so briefly enumerated will in large part diminish individual susceptibility, and therefore the incidence of the disease.

THE COMING OF PEACE.

The writer has made the prophecy that peace will come in Europe before snow flies again. You see, he is a brave man! But there are many signs and rumors, showing that the people of the nations engaged are getting thoroughly tired of destroying one another; and it requires no great perspicuity to discover that if the contest continues many months more their resources in men and wealth will reach a perilously low ebb. And for what? Probably nothing, or nothing worth while. The war promises to end in a deadlock—a stalement. Great conquests, or the suppression of smaller nations, or the "crushing" of the enemy by either side would meet the moral condemnation of the entire neutral world, and would leave behind a stain from which the "victor" would never recover.

Why cannot the neutral nations of the world, headed by our own administration, be preparing and working now for peace? The time may not be ripe for a peace congress, but it is certainly most desirable that those who can still reason calmly about this war should be discussing methods of settling it in such a way that the awful crime should never be repeated.

To bring about a permanent peace—or one that can give some promise of permanency—two things seem essential. The first is that the burden and the threat of militarism shall be lifted, by general agreement, by all the nations of the world. The second is that justice shall be done to every oppressed people, new treaties being written with the understanding that every government obtains its just power "from the consent of the governed."

Is it not a good time for the neutral nations to be uniting for support of these two principles? What reason in morals or sound economics can any of the belligerents find for opposing them? Deliberate aggression and imperialistic ambition, whether English, Russian or German, have been shown by the experience of the last two years to be deliberate suicide.



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This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

"Spring Tonics."

In the good old days it was thought that winter left everyone run down and in urgent need of a tonic, and the ingenuity of the doctor as well as housewife was drawn upon to provide a tonic that would be potent as well as palatable. But today the skill of the manufacturing chemist has made it possible to employ that best of tonics, cod liver oil, in the spring, summer and whatever other seasons the patient may demand it. In the form of Cord. Ext. Ol. Morrhuae Comp. (Hagee) the profession has at its command a palatable cod liver oil preparation that introduces into the system the every nutritive quality of the crude oil.

The After Care of Children's Ills.

WITH the advent of schooldays and the daily association of many children in the classroom, the contagious diseases of childhood develop and multiply. The exanthemata, as well as diphtheria, whooping-cough, etc., comprise a considerable proportion of the diseases that the family physician is called upon to treat during the late fall and winter months. The robust child, with but a mild infection, frequently recovers quickly, and perhaps requires but little attention during the convalescent period, while the child whose general nutrition is "below



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PROFESSIONAL BUILDING

par" usually emerges from the acute attack with a condition of anemia and general vital depreciation. In the large majority of cases it is undoubtedly wise to encourage and hasten convalescence by means of a palatable and efficient hematinic and general tonic. For this purpose Pepto-Mangan (Gude) is especially valuable. All children like it and take it readily; it does not irritate the digestive organs, but, to the contrary, increases the appetite and assists in the absorption and assimilation of the child's nourishment. As it is non-astringent, it does not, as other ferruginous remedies do, cause or increase constipation. As Pepto-Mangan is prompt and efficient as a blood builder and general reconstructive, it should be preferred among children whenever medication of a general tonic nature is indicated.

The Opium Habit.

Since the passage of the Harrison act the management of opium habitues has been a problem with the profession. Various agents have been employed for the purpose of adding to the victim's moral resistance, and to take the edge off of the inordinate craving for the accustomed narcotic.

It has been found by a large number of physicians that nothing seems to exert such a beneficial influence on opium fiends as PASADYNE (Daniel), and it is recommended in every instance of addiction.

PASADYNE (Daniel) is simply a concentrated tincture of passiflora incarnata, and has a powerful influence over the higher centers. As a calmative, especially in women, PASADYNE (Daniel) is of the highest worth. Besides its marked therapeutic power, it has the further advantage of innocuousness. Sample bottle by addressing laboratory of John B. Daniel, Inc., Atlanta, Ga.

Silvol: A Notable Germicide.

For application to mucous surfaces as a germicide silver nitrate has long been recognized as a distinctly meritorious agent. It has had one serious drawback, however—its use in solution frequently caused irritation. Finally, as was to have been expected, the art of the chemist has overcome this objection. The combination of silver with a proteid base robs the former of its irritating effect. At the same time there is no loss of antiseptic value.

A proteid-silver preparation that is meeting with marked favor by eye, ear, nose and throat specialists as well as by specialists in genito-urinary diseases is offered by Parke, Davis & Co. under the name of Silvol. That this product has a number of advantages over most of the silver salts hitherto used is evident from the numerous commendatory references to it that are finding their way into the medical press. An article in point has just come under the eye of the writer, and is worth noting in this connection. It appears in the December issue of the Journal of Ophthalmology and Oto-Laryngology, and is from the pen of William C. White, D.D.S., Ph.G., M.D., of the University of Louisville.

Dr. White describes Silvol as "a metallic silver in colloidal combination with a proteid base, and slightly alkaloidal in reaction. It occurs in black, metallic, lustrous scales, slightly hygroscopic and very readily soluble in water. In solution it gives a rich seal brown color and produces only a temporary stain to clothing or dressing, which is completely removed by rinsing in warm soapsuds. preparation is so soluble that it requires only a moment to make the necessary solution. It is practically non-irritating in any reasonable dilution. The solution does not require filtering, and I wish to emphasize this fact, as it has been my experience with other similar products, especially in heavy solution, that a tarry substance will appear upon the surface, and, unless this is filtered out, it produces more or less irritation to the sensitive mucous membranes upon drying, leaving a very disagreeable burning or smarting sensation to the parts. None of my patients complained of pain or showed any irritation when a 10 per cent. solution was used; on the contrary, they have expressed a feeling of comfort and a soothing sensation immediately following the application."

In summarizing, Dr. White names these advantages as applying to Silvol: "Quick solubility in any solution necessary for application to mucous membrane; less staining than by other proteid silver preparations; high percentage of silver content; minimum amount of irritation when applied to mucous surface; low percentage solutions necessary as compared with other similar preparations."

Silvol is supplied in powder (ounce bottles) and in 6-grain capsules (bottles of 50). The contents of two capsules make one-fourth ounce of a 10 per cent. solution. Silvol Ointment (5 per cent.), for application to regions where the use of an aqueous antiseptic solution is not feasible, is also offered. This ointment is marketed in long-nozzled collapsible tubes, two sizes, designated as large and small.

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The Therapy of Neurotic States.

THE bromides have served no more useful purpose than in those unstable nervous states so frequently met with in women, and yet owing to this very instability their administration must be supervised with the greatest care if the patient is to be guarded from the disadvantages which accompany the use of these salts.

The fact that BROMIDIA (Battle) represents the therapeutic height of the bromides and is free from their disagreeable side-effects

has made this bromide preparation a great favorite in the treatment of female neuroses.

From it may be expected the full therapeutic effect of the bromides, with the further advantage of freedom from the untoward effects of hastily-prepared bromide mixtures.

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When the Physiologic Processes of the Bowel Need Stimulating.

In this day of extremes the practitioner must not let the success obtained in certain cases of bowel stagnation, by the use of "intestinal lubrication," blind him to the fact that paraffin oil is essentially restricted in its indications. To employ it indiscriminately in all cases of constipation means complete failure to get results in many instances—and the consequent discrediting of a remedy of undoubted value when properly used.

As a matter of fact, in a large proportion of cases of constipation there is atonicity of the muscular coat of the intestines, together with marked decrease of glandular activity. Measures to impart tone to the bowel musculation and increase the glandular secretions are therefore imperative, and no remedy has been found more effective for these two main purposes than Prunoids. This has proven itself a true corrective of constipation of functional origin, its effect on the physiologic processes of the bowels not only assuring a prompt restoration of intestinal activity, but with gratifying freedom from all griping or reactionary constipation. The most casual test will show Prunoids to be a true physiologic laxative that can be used with every confidence in the permanency of its benefits.

PYORRHEA is gradually being recognized as the causative agent in many pathological conditions which long baffled the medical practitioner. Physicians who formerly looked past pus-containing spongy gums to a more or less normal pair of tonsils are focusing their diagnosis on lesions about the teeth. In their early incipiency these lesions are hard to recognize, and are frequently missed even after an examination by the dentist. While the abscesses may be very minute, their growth is gradual, and they continue to furnish a certain amount of toxic material day after day. The patient may never complain of trouble

about the teeth, and the condition gradually grows worse until the teeth become loose and painful.

It is now known beyond any doubt that pyorrhea is the causative factor and the primary focus of infection in many cases of systemic disease.

With the knowledge now available to the physician concerning the etiology of pyorrhea, and a means of administering the ipecac alkaloids by mouth in large doses without nausea by means of Alcresta Tablets of Ipecac, it is entirely within the bounds of reason to expect many startling results from the use of the alkaloids of ipecac in complications that have stubbornly refused to yield to medical treatment.

It is, however, quite essential that the physician co-operate with the dentist, and vice versa, as best results in the treatment of both pyorrhea and the conditions accompanying the disease will be secured only if proper attention is given both to constitutional and local dental treatment.

The Liver in Autotoxic Ills.

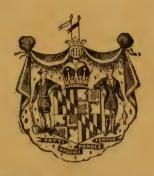
THE liver, as the largest gland in the body and the one that is called upon to do the most work, is to a certain extent both the "clearing-house" and the "depository" of the body's nutritional reserve. It is easy to understand, therefore, how even a slight disturbance of its functions may be followed by serious consequences throughout the whole organism.

Realizing this, it is little wonder that the trained clinician is so keen and prompt to take steps to prevent the continuation of hepatic derangements. Undoubtedly it is zeal in this direction that has led so many physicians to prize Chionia, for they have found it a remedy that can be relied upon not only to restore and maintain hepatic activity, but happily without exciting excessive or objectionable bowel movement. The exceptional therapeutic efficiency of Chionia, therefore, in all functional disorders of the liver has made it one of the most valuable and practically useful remedies at the command of the practitioner who realizes the paramount importance of assuring hepatic activity, especially in ills of an autotoxic character.

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Franklin Square Hospital, is reported as doing favorably.

Dr. Edward N. Brush, Towson, Md., who was operated on for appendicitis the latter part of April, is making a good convalescence.

Dr. Henry O. Reik delivered an illustrated lecture on "Our National Parks in Their True Colors," at the Peabody Institute, April 25th.

Dr. Joseph S. Baldwin, Elko, is reported to be critically ill at the Johns Hopkins Hospital.

Dr. Playford L. Rush, an intern at the University Hospital, underwent an operation recently for appendicitis. He is getting along nicely.

Dr. Charles B. Thompson, for several years an assistant resident physician at the Phipps Psychiatric Clinic, has resigned to accept the appointment as executive secretary of the Mental Hygiene Society of Maryland. Dr. Thompson succeeds Dr. William B. Cornell, who is now at the head of the Children's Hospital and School at Randall's Island, N. Y. Dr. Thompson was graduated from Johns Hopkins Medical School in 1913.

BIRTHS.

RECENTLY to Dr. James B. Holmes, Johns Hopkins Medical School, '12, and Mrs. Holmes, of 15 East Read street, a son—James B. Holmes, Jr.

MARRIAGES.

JOSEPH L. VALENTINI, M.D., University of Maryland Medical School, '07, to Miss Phyllis N. Kidwell, both of Baltimore, Md., at Baltimore, June 26, 1916. Dr. Valentini is the son of Dr. J. Valentini, chief surgeon of the Fire Department. He assists his father in the work of the department.

DEATHS.

Henry Chandlee, M.D., University of Maryland Medical School, '82; Hahnemann Medical College, Philadelphia, '63; associate in roentgenology in the University of Maryland; formerly roentgenologist of the Kernan Hospital for Crippled Children, Baltimore; a member of the Medical and Chirurgical Faculty of Maryland and secretary of the Roentgenological Society of Baltimore, died at the University Hospital, April 19, 1916, from the effects of a carbuncle, after an illness of two weeks, aged 62 years.

EDWARD KELLEY, M.D., Baltimore University, '87; for a time city physician of Trenton; died in St. Francis' Hospital in that city, April 6, 1916, from typhoid fever, aged 62 years.

John Rice Fletcher, M.D., College of Physicians and Surgeons, '91; formerly a Fellow of the American Medical Association; a member of the American Academy of Ophthalmology and Oto-Laryngology, and American Otological Society and once president of the Chicago Laryngological and Otological Society; professor of diseases of the ear, nose and throat in the Chicago Post-Graduate School; died at his home in Winnetka, April 28, 1916, from pneumonia, aged 51 years.

MARY CATHERINE BUELL, M.D., University of Minnesota, Minneapolis, '97, of Cumberland, Md.; formerly a Fellow of the American Medical Association; died February 8, 1916, from intestinal obstruction following colectomy, aged 59 years.

MILLARD F. COCKRAN, M.D., University of Maryland, Medical School, '84; of Wilmington, Del.; a member of the Delaware State Medical Society; died in the Jefferson Hospital, Philadelphia, April 7, 1916, from hemorrhage of the stomach and intestines, aged 57 years.

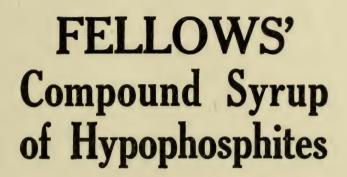
James H. Gibson, M.D., Baltimore Medical College, '93, of Dunbar, Wis.; for fifteen years a practitioner of Green Bay; died at his home in that city, April 5, 1916, from dropsy, aged 65 years.

Joseph S. Baldwin, M.D., University of Maryland Medical School, '74, of Freeland, Baltimore County, Md.; Health Officers of the Sixth District of Baltimore County; died at his home, May 6, 1916, aged 70 years.

Henry L. Donsife, M.D., University of Maryland Medical School, '64, of Woodsboro, Md.; at one time a prominent physician of Frederick, Md., died at the Montevue Hospital, May 10, 1916, as the result of being scalded in a bathtub, aged 73 years.

Joseph H. Hewitt, M.D., Johns Hopkins Medical School, '06, of Saranac Lake, N. Y.; a Fellow of the American Medical Association; a member of the American Association of Pathologists and Bacteriologists; formerly a pathologist of Chicago and Cleveland; died in Saranac Lake, January 10, 1916, aged 37 years.

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WILLS HOSPITAL OPHTHALMIC SOCIETY.

The Meeting of December 6, 1915.

Dr. McCluney Radcliffe, Chairman.

Congenital Cataract.

Dr. S. D. Risley recited briefly the history of four cases of reputed congenital cataract, present in both eyes of each patient, which had been assigned to his service since the first of October. These cases were all in the wards and under treatment at the same time. The youngest patient was seven, and the oldest fourteen years of age. Two of the cataracts were of the lamellar, or zonular type. The others presented posterior capsular opacities, with wheel-like radiations of opacity in the posterior cortex. One of the zonular cataracts was in a girl, both of whose parents were deaf mutes, but no hereditary cataract could be traced. Dr. Risley thought it unusual to have such a group under observation at once. Two of the cases were exhibited, the other two having been discharged with clear black pupils and good vision. The cases were presented to illustrate the speedy results reached by the surgical procedure adopted. Dr. Risley spoke of the many weeks of hospital life required by the repeated discussions which. in common with his colleagues, he had formerly employed. For many years he had, instead of repeated needlings, to secure the slow absorption of the opaque cortex, made a vertical incision of the capsule from the lower margin of the dilated pupil to the upper margin, and this was immediately followed by a deep incision along the same line in the cortex of the lens. Two to four days later, a keratome was introduced at the upper limbus, and carried deeply into the now flacculent and opaque lens, cutting across the line of incision made in the capsule at the first operation, and as near as possible to the upper margin of the dilated pupil. The keratome was then partially and slowly withdrawn, the back of the blade pressed backward against the iris and causing the wound to gape, at the same time preventing the prolapse of the iris into the wound, but allowing the soft cortex to escape, at the will of the operator, over the anterior surface of the blade. If necessary, slight pressure could be exerted with the fixation forceps from below.

In each of the posterior capsular cases an additional capsulotomy for the posterior capsule had been required; but in all the cases a clear black pupil had been secured in from four to six weeks. In one of the cases there was still some cortex remaining, but disappearing five weeks after admission to the hospital. He thought that this procedure diminished very markedly the hospital days, and avoided the danger of repeated discissions; also the recurrence of the inflammatory reaction, so frequently occurring in the presence of cortical debris in the anterior chamber. He had seen many instances of uveal disease after discissions, many of which he thought were not to be explained by the mechanical présence of the fragments of cortex nor by increased tension, but seemed to be due to some toxic properties of the cortex. He felt that this was certainly true of some varieties of cataract—the

Morgagnian cataract, for example.

Dr. Posey commended Dr. Risley's method of removing the lens matter by expressing it shortly after a preliminary needling. He had himself followed this method in a number of cases. He

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said that as it is usually desirable to give an anesthetic of some kind in needling the eye of a young child, any procedure that diminishes the frequency of such anesthetications is of value. He uses a sraight spatula for the removal of the soft lens matter, and makes his incision in the horizontal plane of the cornea, 2 mm. from the limbus. The class of cases referred to by him before a recent meeting of the State Society, in which the capsule of the lens is dense and often the seat of calcareous change, is best treated by depression of the opacity into the vitreous by the knife-needle, such a procedure giving more hope for vision than unsuccessful attempts to move the calcareous mass, either by the knife-needle or by the De Wecker scissors.

Dr. Schwenk stated that he makes a crucial incision in the lens capsule after the lens matter becomes semi-opaque, he curetes the lens in a similar way to the method described by Dr. Risley. Loose cortical matter, when not in the capsule, acts as an irritant; and the sooner it is expressed the more quickly will the eye get well. Dr. Schwenk thought that Dr. Risley deserved to be complimented on obtaining such fine results in so short a time.

Dr. Zentmayer said that when so experienced and skillful an operator as Dr. Risley was unfortunate enough to get a slight prolapse in one case and a drawing up of the iris in another, he, himself, would adhere to the safer procedure of discission. While Dr. Zentmayer thought it true that this method is slow, he said that, aside from the infinitesimal danger of infection, it is safe. In most cases two discissions, supplemented in some cases by a capsulotomy, are sufficient.

THE INFLUENCE OF ALCOHOL ON THE OPERATION FOR CATARACT.

Dr. William Campbell Posey said that doubtless the most common influence is that which exerts itself on the minds of patients about 48 hours or later, after the removal of the lens; for a while he did not agree with Martin, the celebrated French observer, that alcohol is responsible for most of the cases of delirium after cataract operations, he thought that it accounts for quite a number. He wished, however, to speak on the influence of the abuse of alcohol in setting up active uveal changes some days after the operation, in eyes in which healing had been prompt and without complication. He referred to the case of a man 70 years of age. in whom the vitreous became fluid and filled with a flocculent material, in conjunction with all the signs of an acute uveitis, four or five days after the operation. In another case, that of a lawyer, aged 76 years, also a free user of whiskey, a form of plastic irido-cyclitis was set up about four days after the operation. It yielded very stubbornly to treatment. Although in neither of these cases did the urine show positive evidences of renal disease. Dr. Posev was convinced that subtle changes must have occurred in the kidneys, as well as the liver, in consequence of the prolonged abuse of alcohol, which had interfered with metabolism and had originated the inflammatory changes in the eye following the operative procedure. Such cases do best on salicylates, moderate diaphoresis, atropin, dionin and ice, locally. Later, some form of iodide is of service.

Dr. Risley was much interested in the cases reported by Dr. Posey. He said that it was doubtless true that the habitual use of alcohol in any form reduces the ability of the organism to resist disease or to repair injury; as after a surgical procedure. The same, he stated, is true of ether, chloroform or opium. All

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have seen how rapidly apparently strong, vigorous men that drink alcoholic beverages freely, live sumptuously every day, and are clothed in purple and fine linen, may succumb to disease; to pneumonia, for example. Their powers of resistance and repair are disabled. Therefore, the prognosis after surgical interference in such individuals is not good, as Dr. Risley had had many opportunities to observe.

Dr. Burton Chance remarked that he supposed that there is no condition so disappointing as to have inflammation occur after clean operations in presumably robust individuals, as had occurred in the two cases presented by Dr. Posey. Such an occurrence leads to the consideration of the peculiar condition excited by operation. Such individuals have been immune from all disease since childhood, and this being their first illness, the cataract operation develops a weak point. In such persons as Dr. Posey's patients, alcohol had served as a "preservative," and recovery from the effects of traumatism requires a continuance of its administration. From his own observation of the technique of a number of careful surgeons Dr. Chance does not look upon such post-operative inflammation as of septic origin. the contrary, in the class of cases under discussion he is himself inclined to the belief that in the disintegration of lenticular particles, noxious compounds are created, which, together with the presence of the particles themselves, excite inflammation in the uveal tissues. This process would confirm the supposition that such inflammatory reactions are endogenetic, rather than exogenetic, in origin.

HYALINE DEGENERATION OF THE CHOROID.

Dr. Burton Chance briefly reported a case of hyaline degeneration of the choroid, from Dr. Schwenk's service. In the absence of the patient, a girl of nine, Dr. Chance showed a water-color sketch of the eye-ground. A remarkable feature is the play of reflexes, he said, in a negroid fundus. The disk has much capacity on its surface, but does not appear to be swollen. Scattered throughout the entire fundus, but more numerous in the temporal region, are small globular and reniform spots beneath the retina. Certain of the temporal vessels are more sharply outlined than in the normal eye. The fundus presents no signs of active inflammation; the areas are discrete and in no region show coalescence. The peripheral field of vision shows marked contraction, but no localized scotomata. The left eye seems normal in all respects, and the fields are ample. The child is an unusually intelligent Russian, but from her mother, no history could be obtained pointing to a cause for these unusual ocular conditions.

Dr. Zentmayer said that Dr. Chance's case was similar to one that he had recently seen in consultation. A woman, 30 years of age, presented in each fundus small, bright, but not brilliant, yellowish dots, grouped about the macula; more, however, toward the nasal than the temporal side of the fobea. Similar dots were scattered throughout the fundus, up to the region of the ora serrata. In one eye there was a small patch of congenital atypical pigmentation of the retina, and also a small spot of choriodal atrophy. There was a low-grade night blindness. Light sense, tested by Dr. Langdon, on the Langdon photometer, showed the minimum of normal. The visual fields were contracted to within 40 degrees of fixation for form, and 20 degrees for red. The case



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seemed to belong to the class of retinal degenerations without pigmentations.

RESULT OF A HEISRATH-KUHNT OPERATION.

Dr. William Zentmayer exhibited this case to show the destructive effects of grattage and the result from combined excision and resection. As the result of grattage, broad bands of conjunctiva stretched between the lids and ball, making it difficult to secure sufficient conjunctiva to take the place of the excised tissue in the Heisrath-Kuhnt procedure. Ten days had elapsed since the operation, which had been done because of repeated ulceration of the cornea; and already the ulcers were healed. The patient stated that the eyes were more comfortable than they had been for years. On the one side, there had resulted a widening of the palpebral fissure, whereas on the other side there was a slight narrowing of the fissure.

RESULT IN AN O'CONNOR OPERATION FOR SQUINT.

Dr. Zentmayer showed this case to demonstrate a good result obtained in nearly every case that he had operated on by this method. The case was one of esotropia of 45 degrees, in a girl eight years of age. It was only 12 days since the operation, the stitches having been removed two days before, and the patient showed about five degrees of over-correction. Both externi had been advanced, but no tenotomy of the interni had been made.

Dr. Posey said that he had done the O'Connor operation upon 10 patients or more and had had great reaction follow it in two cases, the tissues at the site of the advancement having sloughed three or four days after the operation. While the results in some of the cases were extremely good, the amount of reaction obtained in two cases caused Dr. Posey to reserve his opinion regarding the value of the method until he had had further experience with it.

Dr. Chance said that the O'Connor operation, while still on trial, has amply demonstrated its efficiency. In his own experience of four cases, he had been impressed by the mildness of the reactions. In each instance, the patient had been able to leave the hospital or his house by the end of a week. The total effect of the advancement had been most satisfactory in each case. Dr. Chance had not seen ulceration, necrosis, or any other disturbance of the tissues about the knots; but in his first case, a cyst was noticed at the lower angle of the conjunctival scar. This cyst, he assumed to be in some way connected with the dissolution of the cat-gut, although it might have been caused by the inclusion of the conjunctival tissues within the wound. He snipped it, and after an interval of several months, it has not reappeared.

J. Milton Griscom, M. D.,

THE EATING OF CANDY.

In one of his most brilliant essays, "The Seven Deadly Sins of Society," Dr. George M. Gould placed candy-eating side by side with syphilis, tuberculosis, gonorrhea and several other great social vices. He told of the enormously increasing consumption of this food, and ascribed to it much of the alleged physical deterioration of our degenerate race.

In spite of Dr. Gould's philippic, there seems to be a growing sentiment that candy, instead of being a curse, is really a blessing. This is beautifully set forth in a fine editorial upon "King Candy," which we are reproducing in another part of this journal, from



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the Medical World. After all, sugar is a food—one of the most easily digested and most rapidly metabolized of all foods. For the quick release of energy, so urgently demanded by the young and vigorous, it takes first rank. There is only one substance which is turned into fuel in the body more quickly, and that substance is alcohol. Alcohol itself is a food, but no one now claims that it is a desirable addition to the dietary, because of the physical deterioration and the too-frequent vice which accompanies its habitual use. Sugar, on the contrary, produces energy without apparent injury; at least, the injury which may be produced is purely problematic.

Many of our readers will remember that in Jack London's autobiographic story of a struggle to throw off the power of alcoholic drink, "John Barleycorn," he told that during his boyhood and early manhood he had a constant craving for candy, and when he could get candy he had no desire for alcohol. Always he detested Barleycorn, and always longed for the sweet. From both he got energy—but one injured, the other helped. It is probably in recognition of this longing, which prevents men from taking to drink, that the United States Government buys enormous quan-

tities of candy to ship to its soldiers in the Philippines.

We are certainly very much inclined to agree with the World that the popular prejudice against candy "is born of Puritanism and stinginess, equal parts." It is certain that all children long for candy, and the writer has yet to see any child who, in his opinion, has been injured by its use in moderate quantities. The seemingly exhaustless energy of children, their impulse for action at all times and under all circumstances, demands large quantities of food readily convertible into energy. It is this impulse which probably is responsible for the craving for sweets. There is little or no evidence that decay of teeth is caused by excess of sugar. It is far more likely to be caused by neglect of proper cleaning of the teeth.

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may produce headache?

Polluted drinking water causes many deaths?

An efficient health officer is a good community investment?

Bad teeth handicap children?

Insufficient sleep endangers health?

Efficient muzzling of dogs will eradicate rabies?

The protection of the health of children is the first duty of the nation?

Bad temper is sometimes merely a symptom of bad health?

Insanity costs every inhabitant in the United States \$1 per year? The U. S. Public Health Service has proven that typhus is spread by lice?

Untreated pellagra ends in insanity?

In the lexicon of health there is no such word as "neutrality" against disease?



THIS Directory is maintained mainly for the benefit of local firms seeking the patronage of physicians and their families. Only well established and reliable concerns will be represented, and doubtless the space at our disposal will be constantly in demand. In responding to these exploitations, the reader will find it mutually advantageous to mention the MARYLAND MEDICAL JOURNAL.

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This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Pollen Extracts in Hay Fever.

An illuminating pamphlet on Pollen Extracts and their adaptability to the prophylaxis and treatment of hay fever comes from the press of Parke, Davis & Co.

"As regards the symptom complex known as hay fever," says the booklet by way of introduction," there is no doubt in the minds of the majority of authorities at the present time that it emanates from the pollens of the flowers of various grasses, shrubs and trees. Elliotson, in the early part of this century, was the first to suggest the relation of the pollens of grasses to hay fever, but it was left for Blackley and later Dunbar and his pupils to definitely prove in a scientific manner this relationship.

"At present the pollen diseases are defined as a group of vasomotor disturbances, of seasonal periodicity, depending upon individual hypersensitiveness to the pollens of certain plants, and characterized by exudative catarrhal inflammation of the nasal, tracheo-bronchial and conjunctival mucous membranes. In America two varieties of hay fever are recognized—the spring variety, due to the graminaceae, especially timothy grass, and the autumnal variety, due to the compositae, especially the ragweeds. * * *

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The Original Front Laced Corset, superior to other Front Laced Corsets. All the different models from \$2 to \$25. Fittings by expert fitter and corsetiere.

Chattolanee Spring Water

mental and clinical work, that individuals who are susceptible to the proteid of one pollen are sensitive to proteids of other pollens of the same family, and that protection can be produced in the majority of patients by immunization with the extracts of the pollen of the most frequently encountered representative members of that family. Hence, Ragweed Pollen Extract will protect against members of the family of compositae, and Timothy Pollen Extract will protect against members of the family of Graminaceae. These two extracts, therefore, will be found suitable for prophylaxis and treatment for the large majority of cases of hay fever encountered in America."

In addition to the two extracts mentioned in the foregoing, announcement is made of a third product, Pollen Extract Combined. The three varieties are briefly described as follows:

"I. Timothy Pollen Extract, for the estimation, prophylaxis and treatment of the spring or vernal variety of hay fever.

"2. Ragweed Pollen Extract, for the estimation, prophylaxis and treatment of the autumnal variety of hay fever.

"3. Polen Extract Combined, which may be used in either vernal or autumnal hay fever, but is especially indicated in cases which begin early and last long, showing susceptibility to the early and late pollens."

The prophylactic and therapeutic use of the extracts is, of course, fully covered in the pamphlet, which also contains excerpts from articles by various well-known authorities—Ulrich of Minnesota, Freeman of London, Lowdermilk of Kansas, Koessler of Rush Medical College (Chicago), Cooke of New York City, and others. It is not extravagance to say that the booklet, which bears the title "Pollen Extracts," is a valuable contribution to our current literature on the subject of hay fever. A copy of it may be obtained on request from Parke, Davis & Co., Detroit.

The Delicate School Girl.

Even the most robust and generally healthy children show the deleterious results of the modern system of educational "forcing" that prevails in most of our larger cities. The child that starts the school year in excellent physical condition, after the freedom and fresh air of the summer vacation, in many instances, becomes nervous, fidgety, and more or less anemic, as the term progresses, as the combined result of mental strain and physical confinement in overheated, poorly ventilated

schoolrooms. How much more likely is such a result in the case of the delicate, high-strung, sensitively organized, adolescent girl? certainly a great mistake to allow such a girl to continue under high mental pressure, at the expense of her physical health and well being, and every available means should be resorted to to conserve the vitality and prevent a nervous breakdown. Regularity of meals, plenty of sleep, out-of-door exercise without fatigue, open windows at night and plenty of nutritious food, should all be supplied. Just as soon as an anemic pallor is noticeable, it is a good plan to order Pepto-Mangan (Gude) for a week or two, or as long as necessary to bring about an improvement in the blood state, and a restoration of color to the skin and visible mucous membranes. This efficient hematinic is especially serviceable in such cases, because it does not in the least interfere with the digestion nor induce a constipated habit.

Putting Drug Fiends on Their Feet.

When, as a result of the Harrison anti-narcotic act, drug habitues were suddenly deprived of their accustomed drug, the trials of physicians increased coincidentally, for the unfortunates knocked at the doctor's door and clamored for help. The nervous system of these patients lacks stability; they do not sleep well, and their moral force is practically nil.

A New York doctor found through cruel necessity that Pasadyne (Daniel) came nearer giving relief to the addict's symptoms than any other agent, and since then dozens of other physicians have told us the same thing.

Pasadyne (Daniel) has an affinity for nervous tissue. It enables these patients to get a grip on themselves, secures restful sleep for them, and, in short, is the biggest sort of help in putting a drug fiend on his feet.

A sample bottle of Pasadyne (Daniel) may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Georgia.

Codliver Oil for Puny Children.

Whilst codliver oil long has been recognized as of the utmost value as a nutritive for puny children, yet by reason of the oil's obnoxious taste and odor it had to be dispensed with. It was not until the pharmaceutical chemist made it possible to put codliver oil up in palatable form that its purposes have been utilized to the fullest. Cord. Ext. Ol. Morrhuae Comp. (Hagee) is the standard of the palatable codliver oil products. No part of the oil's worth

FEDERAL ANTI-NARCOTIC LAW

GLYCO-HEROIN (SMITH)

The composition of Glyco-Heroin (Smith) is not being changed to meet any of the exemptions or privileges allowed under the so-called "Harrison Anti-Narcotic Law" and whereby it might be sold to the public.

Glyco-Heroin (Smith) will remain just what it always has been and just what it was always intended to be, viz: a stable, uniform and dependable product for the convenience and use of physicians only, in the treatment of Cough, Bronchitis, Whooping Cough, etc.

In prescribing Glyco-Heroin (Smith) use ordinary prescription blanks. Give the name and address of patient, your own name and address in full, your registry number and date when written, (no copy or other record required.)

Prescriptions cannot be refilled

MARTIN H. SMITH CO., New York

has been lost in the process of manufacture, and owing to its ease of digestion it may be continued for long periods. This latter fact makes it of pre-eminent value in the treatment of disability in women and children.

Dressings in Suppurating Wounds.

The healing of suppurating wounds may be expedited in a marked degree by the use of ECTHOL (Battle). In addition to a germicidal influence it adds to cellular resistance, as a result of which the luxuriant germ growth becomes inhibited, until finally the purulent process becomes reduced to the point where the resistance of the involved tissues turns the tide toward healthy granulation. Where such wounds are of more than ordinary size or severity, the internal administration of ECAHOL has proven a most useful adjunct to the local treatment.

"I AM pleased to inform you that I have had wonderful success with Tongaline during our epidemic of grippe here in Boston."

No Shortage of Pepto-Mangan.

It affords us pleasure to call special attention to the advertisement of Pepto-Mangan in this issue.

It will be noted that plentiful supplies of this standard hematinic are again available, after a brief shortage of stock, due to unexpected delays in the fitting up of a new and thoroughly modern laboratory for its manufacture in New York City.

Pepto-Mangan (Gude) is now and will continue to be owned, controlled and manufactured in the United States, and will be supplied, exactly the same as heretofore, in unlimited quantities and at the usual price.

The ampoule is a refinement in the administration of drugs hypodermatically, and physicians have been quick to appreciate the superiority of this form of medication over that of preparing solutions from tablets. The ampoule insures sterility of solution, accuracy of dosage and convenience in emergencies.

The ampoule often makes it possible to secure results that would not be attainable by oral administration; the effects are prompt, the dose is small, and there is usually less disturbance of the normal body functions.

Hermetically sealed ampoules as prepared at the Lilly Laboratories under the strictest asceptic precautions, can be kept in a sterile condition indefinitely. Each Lilly Ampoule is scratched at the constriction just above the body so that it may be broken easily and the contents withdrawn with the syringe. In addition to the outer box, each ampoule is packed in an individual carton, fully labeled. The physician may carry one or more loose in his medicine case or pocket safe from breakage.

Proportions of maltose and dextrins that are equally effective in both diarrhea and constipation and that are adapted to the needs of the sick infant as well as the baby in health, are present in,

Grippe.

GRIPPE is an epidemic catarrhal disease, and is usually accompanied by or complicated with severe cephalic, thoracic or abdominal disorders, rheumatism, etc.

The complications are legion, embracing almost every form, respiratory, circulatory, di-

gestive, urinary and nervous, affecting the organs of sight, hearing, olfaction, gustation, etc.

We think that all who have made a test of the action of Tongaline, either in the acute stage of the malady, or in the period of convalescence marked by the extreme nervous disturbance above alluded to, will be convinced that Tongaline has a direct and marked influence for good.

There is not an organ of the body which may not be so impaired by grippe as to lead to a permanent disability, but on account of the extraordinary eliminative action of Tongaline, this rarely occurs if that remedy is used, since there is then no opportunity for such an accumulation of the poison as to induce permanent harm."

The Treatment of Dysmenorrhea.

As the general practitioner knows only too well, dysmenorrhea is productive of much pain and misery. Epecially does it often severely handicap the working woman, since if not relieved by a safe and effective remedy, it renders her temporarily either unfit for her daily vocation, or compels her to fulfil her task under circumstances which essentially lower her efficiency. Naturally many women when suffering from this distressful condition have recourse to opium or some of its numerous preparations, which, to use an old adage, is, for the one afflicted, like "jumping from the frying pan into the fire." True, the pain will be relieved, but there is always the liability of establishing a habit, in addition to the other evils to be feared from the employment of opium or its derivatives. Fortunately it is rare that such drugs need to be used, except in the most exceptional cases, for in Phenalgin the profession have an excellent substitute, a remedy that exerts a thoroughly dependable anodyne or analgesic effect, without exercising at the same time any depressing or injurious action. Stated in brief, Phenalgin can be relied upon to control the severe pain of dysmenorrhea in all but the rarest cases, without the dangers or sequelae of other pain-relieving measures.

"For a lady patient, very nervous, with a constipated tendency and some kidney trouble, who had a severe attack of rheumatism, I prescribed Tongaline Liquid and Tongaline and Lithia Tablets, with the result that she was thoroughly relieved."

MARYLAND Maria Medical Journal

Medicine and Surgery



The Medical Journal Company

RALTIMORE

Publishers

WASHINGTON

Volume Fifty-Nine Number Seven JULY, 1916

Annual Subscription Two Dollars

Obstipation Following Operation

is psychologically depressing to the patient and causes him to "wonder if the operation was successful." Thus, dissatisfaction with the surgeon's result often arises both with the patient and with the family doctor. The patient becomes morbid, and even a hypochondriac, and "wonders if he will ever get well."

This is in addition to the pathology of the condition, namely, the autotoxemia arising from the obstipation, but INTEROL, as part of the post-operative treatment, coaxes the anesthetic-deranged peristalsis back to normal, at the same time softening, and then *lubricating* the feces around bends and angulations in the gut, making possible easy bowel movement, without straining at stool.

Some of our professional friends commence the INTEROL treatment one to three days following operation, and continue its use after the patient leaves the hospital.* Eventually, it is diminished and finally discontinued,—INTEROL, in most cases, does not have to be taken forever.

INTEROL is more than "ordinary mineral oil": (1) it possesses effective lubricating body so that it clings to the fecal mass—INTEROL has efficient "spread and mix" properties * (2) no "lighter" hydrocarbons to disturb the kidneys (3) no sulphur compounds to disturb digestion (4) no odor or flavor, so that the patient can take it and derive its benefit.

*INTEROL booklet on request. Pint bottles, druggists.

NAN HORN AND SAWTELL, 15 and 17 East 40th Street, New York City

IF YOU ARE USING

some nondescript inferior substitute for

Gray's Glycerine Tonic Comp.

FORMULA DR. JOHN P. GRAY

you are not getting the results you would were you using the original. On the contrary, your patients fail to receive the benefits they hope for—or you to accomplish the effects you have a right to expect.

"The original Gray's" (in 16 oz. Bottles) represents the highest quality, constant uniformity, and definite responsibility. That is why its use means protecting your patients' welfare and safeguarding your own interests.

Insisting on "the original Gray's" often means the difference between SUCCESS and FAILURE.

THE PURDUE FREDERICK CO., 135 CHRISTOPHER STREET, NEW YORK.

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Chevy Chase Sanatorium

WASHINGTON, D. C.

A HIGH-GRADE institution for the care and treatment of those suffering from Nervous and Mental Diseases, Alcohol and Drug Addicts and general enfeeblement.

Located in the choicest suburb of the National Capital, surroundings ideal, buildings new, heated by steam, lighted by electricity, licensed by the District of Columbia, inspected and controlled by the Health Department of the City of Washington.

FOR TERMS, ADDRESS

DR. BENJAMIN RUSH LOGIE

Chevy Chase Sanatorium

WASHINGTON, D. C.

IN PLACE OF OTHER ALKALIES USE

Phillips' Milk of Magnesia

"THE PERFECT ANTACID"

For Correcting Hyperacid Conditions—Local or Systemic. Vehicle for Salicylates, Iodides, Balsams, Etc.

Of Advantage in Neutralizing the Acid of Cows' Milk for Infant and Invalid Feeding

Phillips' Phospho-Muriate of Quinine

NON-ALCOHOLIC TONIC AND RECONSTRUCTIVE

With Marked Beneficial Action Upon the Nervous System. To be Relied Upon Where a Deficiency of the Phosphates is Evident

NEW YORK

THE CHAS. H. PHILLIPS CHEMICAL CO.

LONDON

Do YOU have hay-fever?

"Dr. W. A. K., aged 40, had had autumnal hay-fever for fifteen years, and slight asthma recently. July 7 (1915), calcinm chlorid was prescribed, 1 gm. 3 times a day.

Patient reported in October that he had experienced only trifling symptoms at any time during the season." (See J. A. M. A., March 4, 1915.)

To get the best results and <u>no gastric disturbance</u> you will find it advantageous to prescribe our <u>Elixir Chloro-Calcium</u>—five grains of the c. p. salt to the fldrm.—the only preparation of calcium chloride that every stomach will readily retain. We have just compiled some interesting clinical data on hay-fever; may we send you a free copy?

SHARP & DOHME

"Quality Products"

BALTIMORE - MD.

Hospital. Dr. E. Tracey Bishop of Smithsburg read a paper on "Proper Education in Regard to Medicine." Dr. J. Walter Layman of Hagerstown gave an account of the use of scopolamin in child birth in connection with the twilight sleep treatment. Dr. Hagg of New York read a paper.

The engagement is announced of Paul Wilberforce Harrison, M.D., Johns Hopkins Medical School, of Bahrein, Arabia, to Miss Regina Rabbe, Union Protestant Infirmary Training School for Nurses, class of 1916. Dr. Harrison has been doing medical missionary work in Arabia for five years.

IF war is declared between this country and Mexico, Baltimore will likely lose many of its leading physicians, who will be called to the colors for service in the United States Medical Corps. Among them are:

Drs. Howard E. Ashbury, Charles F. Blake, John D. Blake, Charles J. Boehs, William A. Boyd, Samuel J. Fort, Edgar B. Friedenwald, John S. Fulton, Cary B. Gamble, Jr., Hubert C. Knapp, Edgar S. Linthicum, Duncan MacCalman, Standish McCleary, Alexius McGlannan, Firmadge K. Nichols, Isaac R. Pels, William W. Requardt, Arthur M. Shipley, Charles E. Simon, James E. Stowers, J. Harry Ullrich, Nathan Winslow, Randolph Winslow, Walter D. Wise, Harvey G. Beck, William S. Baer, Joseph C. Bloodgood, Thomas E. Chambers, Joseph A. Chatard, John M. T. Finney, William S. Halsted and William S. Thayer.

BIRTHS.

To William T. Chipman, M.D., University of Maryland Medical School, '12, and Mrs. Chipman of Felton, Del., May 22, 1916, a daughter—Mary Eloise.

To J. Albert Chatard, M.D., Johns Hopkins Medical School, '03, and Mrs. Chatard, of 40 West Biddle street, May 27, 1916, a daughter—Octavia Whelan.

To Henry J. Walton, M.D., Baltimore Medical College, '06, and Mrs. Walton, of 720 West North avenue, June 9, 1916, a son—William Ellis.

MARRIAGES.

LLOYD WARREN KETRON, M.D., Johns Hopkins Medical School, '11, associate in dermatology, University of Maryland, of Baltimore, Md., to Miss Romola Cressey of Modesto, Cal., at Baltimore, May 21, 1916.

Ernest C. Lehnert, M.D., University of Maryland Medical School, '02, to Miss Mabel Neily, both of Baltimore, Md., at Baltimore, June 7, 1916.

DEATHS.

John Evelyn Page, M.D., University of Maryland Medical School, '89, surgeon (lieutenant commander), U. S. Navy (retired), of Santa Barbara, Cal., who entered the navy June 18, 1890, and was retired on account of incapacity resulting from an accident of service, April 3, 1908, after seven years and eleven months' sea service and six years and eight months' shore duty, died May 28, 1916, aged 49 years.

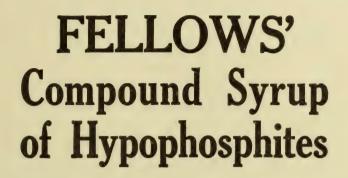
GEORGE HENRY CARPENTER, M.D., University of Maryland Medical School, '68, of Cumberland, Md., died in the Allegany Hospital of the Sisters of Charity, Cumberland, May 24, 1916, aged 73 years.

WILLIAM PAGE McIntosh, M.D., surgeon, U. S. P. H. S., College of Physicians and Surgeons, '82, a Fellow of the American Medical Association and an active member of the Association of Military Surgeons of the United States, who entered the United States Public Health Service in November, 1885, was promoted to passed assistant surgeon, November 1, 1888, and to surgeon, May 20, 1890, and who was placed on waiting orders, April 15, 1915, on account of illness, died at Linwood, Howard county, Md., May 27, 1916, aged 60 years.

JOHN F. HANIFIN, M.D., College of Physicians and Surgeons, '11, of Holyoke, Mass., a member of the Massachusetts Medical Society, died in Saranac Lake, N. Y., May 7, 1916, from tuberculosis, aged 30 years.

Daniel E. Evans, M.D., Baltimore University, '92, of Nanticoke, Pa., formerly a member of the Medical Society of the State of Pennsylvania, died recently at his home, aged 66 years.

THOMAS S. GIBSON, M.D., University of Maryland Medical School, '87, of Alexandria, Va., died at his home, April 26, 1916, from cerebral hemorrhage, aged 56 years.



1866-1916

Not a new-born prodigy or an untried experiment, but a remedy whose usefulness has been fully demonstrated during half a century of clinical application.

For 50 Years The Standard

R Syr. Hypophos. Comp. FELLOWS'

Reject Cheap and Inefficient Substitutes
Preparations "Just as Good"



ANESTHESIA IN CHILDHOOD.

The Medical Council.

Many authorities have taken occasion to direct attention to post-anesthetic vomiting. There have been numerous deaths reported from "delayed chloroform poisoning," and Nicloux and Fourquier have advanced an explanation resting upon the fact that chloroform is hydrolized by the alkalies of the blood, the reaction being as follows: CHCl₃+3KOH=3KCl+CO+2H₂O. In this reaction, as is readily seen, one molecule of chloroform combines with three of potassium hydrate in the blood, thus rapidly diminishing its normal alkalinity.

Vomiting is but one of the symptoms following chloroform narcosis, but an important one. In the case of children who vomit persistently following the administration of chloroform, one cannot get an alkali into the blood too soon, else fatty degeneration

of the liver and death may follow.

It used to be thought that chloroform was the anesthetic of choice with children, but this view is losing ground. After one has had a couple frights during the administration of chloroform to children, as we have had, it is easy to become conservative in this regard. It is becoming just as important to learn what happens to a drug in the system as to find out what the drug does initially to the system, and the secondary action of drugs is an important study. This is especially true as regards narcotics and anesthetics.

Let us illustrate this. Perhaps some gentlemen thought we were severe in our arraignment of hydrated chloral in our June and July issues, but have they ever noted that in typhoid fever, owing to the marked alkalinity of the tissues, small doses of the drug are equal in effect to large ones in other diseases, and that in gout, owing to the lack of alkali in the blood for its decomposition, even large doses are not effective? We use this as an illustration because blood alkali is again involved, decomposing the drug into trichlor-ethyl alcohol. Also chloral hydrate causes degenerative changes in the liver, as does chloroform. The esters are subject to somewhat the same laws. Heroin is an acetic ester of morphin, and is incompatible with alkalies. It is subject to very erratic changes in the body, under certain conditions not well understood.

One could well get up quite an argument over the esters, such as ethyl nitrate, amyl nitrite, nitroglycerin, ethyl acetate, etc., all laying emphasis upon what happens to the drug`in the system. Chloroform is CHCl₃ and methyl chlorid is CH₂Cl, produced by adding HCl to methyl alcohol, and it is an ester, as are others of the alcohols. Chloroform is made by heating ethyl alcohol with chlorid of lime; it is also made by distilling chloral with sodium hydroxid. Ether is also made from alcohol. In fact, the whole class of anesthetic drugs we have noted are related more or less with the alcohols, and what happens to them in the system is quite as important as is their ordinarily accepted physiological actions.

But to return to chloroform as administered to children, the line of study we have indicated is very vital, especially in this day of so much surgery in the diseases of children.

Argue as one may, chloroform is a dangerous anesthetic with



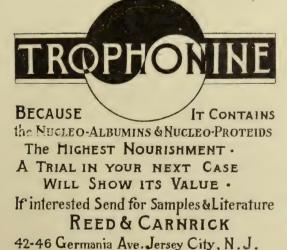
Western Maryland Dairy

BALTIMORE, MD.

BACTERIAL tests show that the milk received by us primarily contains a lower average percentage of bacteria than is usual. It is then subjected to pasteurization after the most scientific and modern methods, thus giving us a distinctive product. Our hygienic plant, No. 1117 Linden Avenue, is at all times open to the inspection of physicians and others who are interested.

STOMACH

WEAKENED BY DISEASE
EASILY and with the LEAST EXERTION
TAKES UP and DIGESTS



children. If it is used, never give rapidly, never use a mask, and never give in a sitting posture. Slow but continuous dropping upon gauze held several inches from the face is the best form of administration. Have oxygen and the tongue forceps handy.

Ether is decidedly safer than chloroform, except in bronchitis, heart and kidney lesions and tuberculosis. The open method with several layers of gauze has the disadvantage of chilling the ether vapor about 30° F., and in bronchitis the development of pneumonia is to be feared in consequence. The Cunningham apparatus, as described in the *Journal American Medical Association*, 1908, p. 1574, largely overcomes this difficulty. If the little patient be first purged and this apparatus used, very slight danger need be apprehended.

Tact and gentleness in administering ether to a child is important. Beginning gently with a little cologne, then a little ethyl chloride, and finally ether, will bring most children under with little or no struggle. But ethyl chloride must not be used to full anesthesia; it is too dangerous, the mortality being I to 1000. Ethyl bromide should never be considered, owing to its danger. Before removal from the operating table lavage may be practiced

with advantage.

Nitrous oxide is ideal for short operations; it is safe, speedy, there is a lack of struggle and nausea and recovery from the

effects is quick.

Dental surgeons are favoring nitrous oxide-oxygen anesthesia. While expensive for long operations, it does admirably. We have looked the matter up, tried to devise and secured the opinions of those with experience in the method; and it appears to be very safe and effective with children, although care must be exercised in case of a weak heart. It impresses operators as being safe in lung troubles, but not so effective as ether where muscular relaxation is a desideratum.

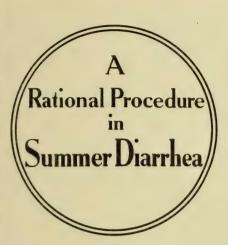
While commonly employed in adolescence, local anesthesia is not so well adapted to operations upon young children. The infantile tissues are readily devitalized, and freezing methods must be used with great care, if at all. Probably the application of ice and salt will produce a sufficient degree of cold for most cases in which freezing methods are applicable in children. The sentiment of the profession seems to be more and more opposed to spinal anesthesia in children. Some authorities are using novocaine in infiltration anesthesia with children.

The special object of this article is to induce operators to refrain from such extensive use of chloroform in the practice of general anesthesia in children, and to prompt further study of what happens in the system to anesthetic and narcotic drugs. Our present knowledge along this line is very partial indeed.

THYMOL FROM HORSEMINT.

Government Specialists Find Commercial Possibilities in Development of New Industry.

That the commercial production in this country of thymol from horsemint may be, under favorable circumstances, a profitable undertaking is indicated by the recent investigations of the United States Department of Agriculture, the results of which are pub-



For Infants of any age

Mellin's Food

4 level tablespoonfuls

Water (boiled, then cooled)

16 fluidounces

Give one to three ounces every hour or two, according to the age of the baby, continuing until stools lessen in number and improve in character.

Milk, preferably skimmed, may then be substituted for water—one ounce each day—until regular proportions of milk and water, adapted to the age of the baby, are reached.

PRESCRIPTIONS

A

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Stuart's Pharmacy

Medical and Surgical Goods

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SAL HEPATICA

AN EFFERVESCING

SALINE COMBINATION

LAXATIVE AND ELIMINANT

BRISTOL-MYERS CO. NEW YORK



lished in Bulletin 372. Thymol is extensively used in medicine, and forms the basis of a number of important pharmaceutical compounds. In the past it has been imported from Northern Europe, where it is manufactured from ajowan seed grown in Northern India. Now that the European war has reduced these importations from over 18,000 pounds in 1914 to a little more than 2000 in 1915, it is believed that to some extent the demand can be supplied at home. For several years the Department of Agriculture has been conducting experiments with horsemint, which occurs as a common weed in many localities. These experiments have resulted in improving the plants by selection to a point which it is said warrants the use of horsemint for the commercial production of themsel.

duction of thymol.

Horsemint is found wild on light sandy soils over the entire region from Southern New York to Florida, and westward to Wisconsin, Kansas and Texas. It is probable that it will thrive under cultivation wherever it is found growing wild, but local economic conditions must be considered in determining whether or not its production would be profitable. The investigations of the Department of Agriculture indicate that by distilling the improved plants an average of 20 pounds of oil per acre may be obtained from first-year plantings, and that in succeeding years the yields should be at least 30 pounds per acre. The phenol content of this oil may be assumed to be about 70 per cent., almost all of which is thymol. The yields of thymol per acre of horsemint, therefore, should be for the first year a little less than 13 pounds, and for succeeding years a little less than 20 pounds. As the average price of thymol for a number of years has been about \$2 a pound, the gross returns per acre from a horsemint plantation are estimated in the bulletin already mentioned at about \$25.72 for the first year and \$38.58 for each succeeding year.

It is more difficult to estimate with accuracy the cost of producing the thymol. In the opinion of the investigators, it is doubtful whether the profits from the industry will be sufficient to warrant anyone in engaging in it unless the horsemint is grown in connection with other oil-yielding plants for which a distilling apparatus is required. In that event, of course, the entire cost of the distilling plant cannot be charged against the thymol industry alone. For this reason in the estimates of cost of production published in Bulletin 372 such items as land rent, taxes, depreciation, upkeep and interest on the distilling plant have not been included. Excluding these items, it is believed that thymol can be produced at an approximate cost of \$23 per acre the first year and \$19 per acre thereafter. This figure includes the growing of the plants, fertilizer, cultivation, harvesting and distilling. A plantation of horsemint will not have to be replanted oftener than once in five years, and under average conditions may continue to give a good yield for a still longer time. After the first year a material reduction can be made in the cost of fertilizers if the distilled herb is returned to the soil. These facts account for the reduction in the cost of production after the first year.

Horsemint seed matures in the Southeastern States during August and September, and is ready to be gathered as soon as the calyx is dry and has assumed a dark brown color. The entire heads can readily be stripped off by hand. They should be spread out on a cloth or tight floor and thoroughly dried. The seed can then be removed by rubbing through a sieve, common window



AFFORDS PROMPT RELIEF IN ALL CATARRHAL DISEASES REACHED BY LOCAL APPLICATION

Pharyngitis, Laryngitis, Hay Fever, Acute Coryza, Rhinitis, Ozena and Inflamed Mucous Membrane in All Parts of the Body

 $Laryngologists\ find\ SABALOL\ SPRAY\ invaluable\ in\ the\ treatment\ of\ the\ throats\ of\ actors, singers\ and\ speakers$

T. C. MORGAN & CO., 102 John St., New York

YOUR SPECIAL ATTENTION

IS DIRECTED TO

Beef, Iron and Wine, with Hydropepsin,
Liquid Pi-cine Co.,
Red Syr. Hypophosphites Co.,

Compound Salol Capsules.

THOMAS & THOMPSON CO.

Manufacturers and Dispensers of Pure Medicines (Wholesale and Retail)

Cor. Baltimore and Light Sts., Baltimore, Md.

WM. H. CARRIGAN, President

E. F. OHLMEYER, Secretary and Treasurer

THE BROWN OPTICAL CO.

Optometrists and Opticians

112 North Howard Street

BALTIMORE, MD.

Ex-President Cleveland said:

No investment on earth is so safe, so sure, so certain to enrich its owners as undeveloped realty. I always advise my friends to place their savings in realty near some growing town. There is no such savings bank anywhere.

Following this suggestion, I offer a few large lots, 125' x 250', in a new and growing Northwestern development just outside of Baltimore City at less than 4 cents per square foot. Mail a postal for maps, pictures and cash discounts. Also "Easy Terms".

RICHARD W. COOK,

14 E. Lexington Street

The purity and quality of the salts used insure gratifying freedom from gastric disturbance or "bromism"-even on prolonged administration.

PEACOCK'S BROMIDES

Used with conspicuous success in Epilepsy, Uterine Congestion, Headache, the Reflex Neuroses and whenever a reliable antispasmodic or sedative is required.

CHIONIA

Affords hepatic stimulation without purgation---a true cholagogue.

PEACOCK CHEMICAL CO.

St. Louis, Mo.

screening being about the right size. Where the winters are free from severe frost and snow, as in the extreme Southeastern States, the best results can be secured by planting the seed about the first of September in a carefully-prepared seed bed. About two months after sowing, when the plants are about two inches high, they are ready for transplanting to the fields.

Fuller information in regard to methods of cultivation, harvest-

ing and distilling are contained in Bulletin 372.

MEDICAL EDUCATION.

G. Wilson, Baltimore (Journal A. M. A., April 8, 1916), after noticing the raising of the standards within the past two decades and admitting that the American people are receiving vastly better medical attention than even 10 years ago, says already the cry for a doctor is coming from rural communities, and that they are asking for a good doctor, if possible, but in any case a doctor. While the report of the Carnegie Foundation on medical education in the United States has done an immense amount of good. he thinks that it has held largely the position of an advocate rather than of a judge, and has not considered sufficiently certain important factors. One of these is the difference in the morbidity rates in certain districts from those abroad and the bearing of the per capita wealth of the community with the ratio of physicians to population. His personal opinion as regards medical education has been that there is need in this country of two classes of medical schools, the one like the Johns Hopkins, in which the requirements can hardly be set too high, and the other and larger class for the training of general practitioners. The first type of school should have a limited class of students, trained not only in clinical and laboratory medicine, but also in the methods of research. They would become teachers, research workers and specialists, practitioners and consultants in the larger towns and cities. To require this of all men who desire to practice medicine would, Wilson thinks, undoubtedly raise the standard, but be no more satisfactory than to require that all locomotive engineers be graduates in mechanical engineering from an approved college. The second class should demand a good education in the essentials, namely, the requirements demanded for admission to most colleges and including the essential fundamental scientific branches underlying medicine, such as chemistry, physics and biology. He would not consider an ancient or modern language essential, though it would be a help. He questions the general accuracy of the statement of the Carnegie Foundation that graduates of the Johns Hopkins Medical School have settled to any extent in small communities. From a study of statistics he finds that they are extremely rare in those of Maryland, where the other school in Baltimore has 350 practitioners from its graduates. In 16 years, from 1897 to 1913, inclusive, the Johns Hopkins Medical School has graduated o65 men, of whom only four are practicing medicine in rural Maryland. He gives tables supporting the statements, and trusts that the progress in regulating medical education will be done throughtfully, and quotes the words of President Prichett of the Carnegie Foundation: "Let us not forget in our zeal for research that the principal function of the medical school is the training of medical practitioners."



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"HOW TO BLOW THE NOSE."

There is a lot of good sense in an article on blowing the nose contributed by Dr. E. Harrison Griffith to the *Medical Record*. There is no doubt that much trouble is caused to the nasal and accessory passages by the American habit of "hawking back" accumulated secretions into the nasopharynx. Back of the habit, however, is a very trying climate, and it is hardly likely the best-intentioned lecturers in the world will rid people of the almost uncontrollable impulse to get rid of irritant secretions in the easiest and apparently most natural way. We suggest that instead of lecturing us on the bad habits, the doctor should tell us what we may do to get rid of the unnatural condition that inspires it.

We confess that we feel a certain amusement at Dr. Griffith's suggestion that drills for the proper use of the handkerchief be instituted in the public schools. With toothbrush drills, handkerchief drills, breathing exercises and military maneuvers—and possibly other "drills" to come, and with hours set aside for religious instruction for lectures on sex hygiene, the poor youngsters will soon have no time to struggle with the "three R's." Juvenile human nature remains about the same from generation to generation, and the most powerful force in bringing up the child in the way he should go is the power of good example, which must begin at home. Don't try to crowd too much into the

school course.

DO YOU KNOW THAT—

LIFE is a constant struggle against death? Dirty refrigerators may make sickness?

The United States Public Health Service issues free bulletins on rural sanitation?

The defective citizen of today is ofttimes the unhealthy child of yesterday?

Every man is the architect of his own health?

It's the baby that lives that counts?

Tuberculosis is contagious, preventable, curable?

The full dinner pail—the open window—the clean well—make for health?

Light promotes cleanliness?

A clean mouth is essential to good health?

Physical training in childhood is the foundation of adult health?

The U. S. Public Health Service issues publications on hygiene and sanitation for free distribution?

Isolation is the most efficient means of controlling leprosy? Headache is Nature's warning that the human machine is running badly?

Bullets may kill thousands—flies tens of thousands?

Obesity menaces longevity?

Walking is the best exercise—and the cheapest?

The United States Public Health Service administers typhoid vaccine gratis to Federal employees?

A little cough is frequently the warning signal of tuberculosis? Bad teeth and bad tonsils may be the cause of rheumatism? Unpasteurized milk frequently spreads disease?



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MOST therapeutic agents employed to relieve constipation, create a certain dependence caused by stimulating unnatural muscular activity of the intestines.

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This feature adds emphasis to our statement that Stanolind Liquid Paraffin is a safe and dependable agent for continued internal administration.

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THIS Directory is maintained mainly for the benefit of local firms seeking the patronage of physicians and their families. Only well established and reliable concerns will be represented, and doubtless the space at our disposal will be constantly in demand. In responding to these exploitations, the reader will find it mutually advantageous to mention the MARYLAND MEDICAL JOURNAL.

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PRACTICE FOR SALE—A large, established country medical practice, located in and around a thriving borough on the main line of the Northern Central Railway Co., in York County, Pa., 10 miles from York and 50 miles from Baltimore. Railroad surgeon. No competitor in vicinity. For further information, address Dr. X, care Maryland Medical Journal.

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HARDLY another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired luster to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

In Functional Nervous Diseases.

THE first and fundamental question which the earnest physician asks today in determining the utility of any remedy he wishes to use is "what will it accomplish?" If it does what he asks it to do, and does it better than anything else he has ever employed, he will certainly use it in preference to anything else. If it fails and proves valueless, he will as certainly discard it in short order. His common sense and intelligence will permit of no other course, for medical men build their practices on successes, not on failures. Beneficial results of a definite, positive character are constantly sought, and it is in achieving these that a physician proves his worth as a practitioner of medicine. Thus in the treatment of functional nervous diseases derangement of the bodily nutrition is so prominent a factor that the first consideration in these affections is a restoration of the nutritional balance. To accomplish this Gray's Glycerine Tonic Comp. is widely recognized as a remedy of remarkable efficiency. Under its systematic use the appetite is increased, the digestion is improved and the nutrition shows a marked and substantial gain. Coincident with this nutritional gain there is a corresponding increase in nerve force, with a very pronounced and grati-



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fying correction of insomnia, indigestion, headaches, vague pains, nervousness and other symptoms of nervous origin.

If you have some case of neurasthenia or other functional nervous disease and would like to give Gray's Glycerine Tonic a critical trial, why not send today for samples? A supply will be sent you at once. Address the Purdue Frederick Co., 135 Christopher St., New York.

Campetrodin.

This preparation is an oleaginous solution of iodine in camphor. Soothing, penetrating, powerful antiseptic, local analysis, alterative, ideal surgical dressing.

The great therapeutic value of Campetrodin is attributed to the fortunate properties of its vehicle, which permits the remedy to enter the tissues and blood stream, as it were, by osmosis, bringing about results immediate and satisfactory. Wherever the therapeutic properties of iodine are indicated, Campetrodin can be relied upon, minus the disadvantage of crude iodine. It relieves local pain promptly without local irritation; on the contrary, it can be applied to denuded or burned surfaces as an anodyne.

As an antiseptic dressing it is equal to any, and without the dangers of most of them. In all cases where prompt absorption or lymphatic stimulation is desired it penetrates the tissues almost as soon as it is applied to the skin.

Campetrodin (Double Strength) is especially valuable in reducing swollen glands and relieving obstinate, deep-seated rheumatic and neuralgic pains.

Both strengths supplied on prescription in one, three and eight ounce bottles.

On request the manufacturers, A. H. Robins Company, Richmond, Va., will be glad to send samples for clinical test.

A Notable Germicide.

It is becoming more and more apparent as time passes that in Silvol we have a germicide of uncommon usefulness. Its field embraces practically all inflammations of mucous membranes. The indications for Silvol include conjunctivitis, corneal ulcer, trachoma, rhinitis, sinus infections, otitis media, pharyngitis, tonsillitis, laryngitis, gonorrhea, cystitis, posterior urethritis, vaginitis, cervical erosions, endometritis, etc.—all infections, in short, in which a silver salt is applicable.

Silvol would appear to have a number of ad-

vantages over most of the other proteid-silver compounds. It is freely soluble in water. While an exceptionally powerful antiseptic, it is non-irritating in ordinary dilutions. Silvol solutions are not precipitated by proteids or alkalis or any of the reagents that commonly affect other silver compounds in solution. They do not coagulate albumin or precipitate the chlorides when applied to living tissue.

In the treatment of acute inflammations of mucous membrane Silvol may be used locally in solutions as strong as 50 per cent. with very little pain or irritation. In inflammatory affections of the ear, nose and throat it may be used in 5-to-40-per-cent, solution, and for irrigating sinuses a 2-to-5-per-cent. solution may be employed with benefit. For inflammatory conditions of the eye and conjunctival infection with pneumococci and staphylococci a 10-to-40-percent. solution may be applied with benefit three times a day. In acute gonorrhea, as an abortive measure, a 20-per-cent. solution should be injected every three hours, while in the routine treatment the injection of a 5-per-cent. solution three times a day is recommended.

Silvol is a Parke, Davis & Co. product. It is supplied in ounce bottles and in bottles of 50 capsules, each capsule containing 6 grains; also in ointment form (5-per-cent. Silvol) in collapsible tubes containing approximately ½ ounce and 1¼ ounces.

Codliver Oil for Children.

Owing to its very acceptable character, Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is especially adapted for use as a reconstructive in children. Either as a tissue-maker in debilitated conditions resulting from impaired metabolism or consequent upon an acute illness, Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will prove of marked advantage. Its therapeutic powers are added to by its palatability. It may be continued over long periods without causing gastric distress, nor does the hot weather make its use more difficult.

More Than a Coincidence.

It was more than a coincidence that thousands of physicians stated in response to a recent inquiry that one of their most highly-prized drugs was cactus. A few doctors might have so reported and the fact be attributed to personal prejudice, but when the same is vouch-

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The composition of Glyco-Heroin (Smith) is not being changed to meet any of the exemptions or privileges allowed under the so-called "Harrison Anti-Narcotic Law" and whereby it might be sold to the public.

Glyco-Heroin (Smith) will remain just what it always has been and just what it was always intended to be, viz: a stable, uniform and dependable product for the convenience and use of physicians only, in the treatment of Cough, Bronchitis, Whooping Cough, etc.

In prescribing Glyco-Heroin (Smith) use ordinary prescription blanks. Give the name and address of patient, your own name and address in full, your registry number and date when written, (no copy or other record required.)

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safed by thousands of earnest practitioners, it must be believed that their verdict was based on actual observation and clinical experience.

There can be no doubt that Cactina Pillets fill a definite place in the management of cardiac disorders. No claim is made that these are to supersede the more powerful cardiac drugs, when these are properly indicated, but when it is desired to support and sustain the heart and strengthen and regulate its action, Cactina Pillets will not disappoint. Thus a great many physicians have grown to look on Cactina Pillets as one of the safest and most satisfactory cardiac tonics at their command. One to two Cactina Pillets every three or four hours will be found excellent—for example, for relieving the so-called "tobacco heart."

Fretful Children.

While in the majority of instances fretfulness in children points to the need of correcting—for instance, some gastro-intestinal disorder—yet there are times when a sedative is indicated, and at such times the physician will find PASADYNE (Daniel) of more than ordinary value. PASADYNE (Daniel) is merely a distinctive name for a pure, concentrated tincture of passiflora incarnata. While therapeutically active, PASADYNE is free from danger, a point that gives it a particular advantage in children.

Following its administration, these little patients secure restful sleep.

A sample bottle may be obtained by addressing the laboratory of John B. Daniel, Inc., Atlanta, Georgia.

Iodine in Syphilis.

While the extraordinary worth of iodine in late syphilis easily places it among the indispensable therapeutic agents made use of by modern medicine, yet it is due to the skill of the pharmaceutical chemist that iodine has been enabled to hold its high rank as a drug agent. Iodine as such, of course, is out of the question, and even the popular iodide of potash oftentimes occasions such distress as to neutralize its potential value. But in IODIA (Battle) the physician has an iodine product of distinct usefulness, and particularly in the later manifestations of syphilis, for not only does it provide a means of introducing iodine into the system. but, furthermore, it is free from the irritating qualities of the plain iodide. Its therapeutic effects are further enhanced by the addition of certain of the vegetable alteratives which have been clinically shown to exert an influence on the syphilitic processes. Whenever iodine is indicated, IODIA (Battle) may be exhibited with decided benefit.

A Systemic Boost.

It is safe to say that the average physician is called upon to prescribe a tonic more frequently than any one other form of medication, unless it be a cathartic. Patients who are patients solely because they are tired, "run down" and generally debilitated are constant visitors at the physician's office. Such individuals need something that will boost them up to their normal point of resistance and then hold them there; in other words, not a mere temporary stimula-

tion, with secondary depression, but a permanent help to the revitalization of the blood and a general reconstruction. Pepto-Mangan (Gude) is not only prompt in action as an encourager of appetite and better spirits, but is also distinctly efficient as a blood builder and systemic reconstituent. It is pleasant, non-irritant, free from constipating effect and does not stain the teeth. It is thus a general constitutional tonic of positive service in all conditions of general devitalization.

Sleeplessness.

THERE can be no denying the fact that for allround use, the bromides still hold first place in the rational treatment of insomnia. Of course, especial care should be used in selecting the particular bromides to be employed, as the results accomplished obviously depend to a large extent on their purity and quality. This is well shown by the notable therapeutic utility of Peacock's Bromides, a preparation of bromide salts that for many years has been the first remedy turned to by countless discriminating physicians whenever a sedative or hypnotic has been needed. Particularly in overcoming the sleeplessness due to nervous excitation, neurasthenia, alcoholism, prolonged worry, hysteria, and so on, have Peacock's Bromides been found of never-failing efficiency, with gratifying freedom from gastric irritation, and the all too evident drawbacks that so often characterize other hypnotic agents.

Mellin's Food

was the first preparation of maltose and dextrins presented to physicians in serviceable form, and it stands today as a true representation of Liebig's principles, which are now so generally applied to scientific infant feeding.

"I have used Tongaline for more than 20 years and have found it most satisfactory in every way. A very recent case which came under my care was one in which several physicians had failed, even with the use of organotherapy. Within 48 hours after Tongaline had been administered there was a decided remission of temperature and pain and at the end of one month the patient, who was a lady about 70 years of age and had been a sufferer for years, was able to go about her room and to comb her own hair—something which she had not done for six months previously."

MARYLAND Medical Journal

Medicine and Surgery



The Medical Journal Company

BALTIMORE

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Volume Fifty-Nine Number Eight AUGUST, 1916

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is minimized, and often overcome, by the judicious use of INTEROL, which softens the fecal mass, and lubricates it all along the colon and rectum, past the sphincter, without irritating or abrading the mucosa.

Thus, there is less danger of ulceration; bowel evacuation is facilitated, and the patient made happy on this latter account alone,—entirely aside from INTEROL'S beneficial relation to the accompanying autotoxemia.

Also, INTEROL is of great comfort to the patient suffering from hemorrhoids or fissures, because it makes the fecal mass soft and plastic, so that it is passed with less difficulty and discomfort, and congestion is relieved. For these reasons, INTEROL* has been suggested as a prophylactic measure of these conditions, both for adults and children.

*INTEROL is more than "ordinary mineral oil": (1) it possesses effective lubricating body so that it clings to the fecal mass—INTEROL has efficient "spread and mix" properties (2) no "lighter" hydrocarbons to disturb the kidneys (3) no sulphur compounds to disturb digestion (4) no odor or flavor, so that the patient can take it and derive its benefit.

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you are not getting the results you would were you using the original. On the contrary, your patients fail to receive the benefits they hope for—or you to accomplish the effects you have a right to expect.

"The original Gray's" (in 16 oz. Bottles) represents the highest quality, constant uniformity, and definite responsibility. That is why its use means protecting your patients' welfare and safeguarding your own interests.

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With Marked Beneficial Action Upon the Nervous System. To be Relied Upon Where a Deficiency of the Phosphates is Evident

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THE CHAS. H. PHILLIPS CHEMICAL CO.

LONDON

YOUR hay-fever patients

May be as responsive as this one:

"Miss M. T., 21, had had hay-fever since childhood from May to frost. Gave calcium chlorid 1 gm. t. i. d., July 2d. July 28 greatly relieved. August 13, no hay-fever symptoms left; and had none during rest of the season." (See Dr. Wilson's report in J. A. M. A., March 4, 1916, for further data.)

You are always sure of the <u>purity</u> of the calcium chloride when you use our "Elixir Chloro-Calcium"—five grains of the c. p. salt to the fldrm.; and it never disturbs the <u>patient's stomach</u>, as even the same salt is liable to do when it is administered in water.

Our process of manufacture of this Elixir eliminates the stomach-disturbing feature of calcium chloride.

We have some interesting literature on hay-fever which is yours for the asking.

SHARP & DOHME

"Quality Products"

BALTIMORE-MD.

Lieutenants Paul Hutton, Chas. W. Rauschenbach, George W. Rice, John S. Fenby, William R. Johnson, Caldwell Woodruff, Hyattsville, and Louis Diener.

DR. FREDERICK N. TANNER, Baltimore, who was operated on at the Franklin Square Hospital recently, is reported to be convalescent.

L. Palmer Holmes, chief admitting physician to the Johns Hopkins Hospital, has left for a month's vacation in Arizona and San Antonio, Texas, where he will visit the U. S. A. headquarters.

THE following resolutions were passed at a meeting of the Faculty of Physics of the University of Maryland, held on June 27, 1916:

The Faculty of Physics of the University of Maryland desires to place on record its great sorrow on the death of its late member, Prof. Thomas Almond Ashby, M.D., LL.D., as well as its appreciation of the many and varied attributes of mind and heart that were such prominent features in his character.

The services of Dr. Ashby to the University were always constructive and of great value. He abounded in optimism and had a firm faith in the destinies of the institution, and his death at this time entails a severe loss on the school.

It further desires to give expression to its appreciation of his loyalty as a friend, his courtesy as a gentleman and his unfailing kindness to everyone.

Graduating from the University of Maryland in 1873, he was elected professor of the diseases of women in 1897, after having occupied a similar chair in the Baltimore Medical College for nine years. In both of these responsible positions he measured up to a high degree of efficiency. Be it

Resolved, That these resolutions be spread on the minutes of the faculty, and that a copy of the same be sent to the family of Professor Ashby.

James H. Rowland, Dean.

At the session of the American Medical Association, the association for the study of the internal secretions was formed, the object of which is to collect, collate and evaluate the literature and work of this important phase of medicine.

The preliminary work of putting this new association on a sound and useful basis is in the hands of the following organizing committee: George H. Hoxie, Kansas City, Mo., chairman; L. F. Barker, Baltimore; Judson Daland, Philadelphia; John B. Potts, Omaha; L. R. DeBuys, New Orleans; Emil Goetsch, Baltimore, and Henry R. Harrower as secretary.

MARRIAGES.

Dr. David Corbin Street, a member of Johns Hopkins Hospital staff, to Miss Ferebe Guion Wescott, at Baltimore, July 19, 1916.

Dr. Walter C. Bacon, University of Maryland Medical School, to Miss Nellie Ellice Kinsey, at Govanstown, July 19, 1916.

Dr. Clarence C. Tolleson to Miss Livian Adkeson, at Spartanburg, S. C., on June 28, 1916.

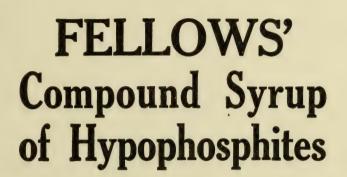
DEATHS.

THOMAS A. ASHBY, University of Maryland, 1873, aged 68; a Fellow of the American Medical Association and president of the Medical and Chirurgical Faculty of Maryland in 1890; a Fellow of the American Gynecological Society and of the American College of Surgeons; professor of diseases of women in his Alma Mater; professor of obstetrics and clinical gynecologist to the Woman's Medical College, Baltimore; gynecologist to the Maryland General Hospital and consulting gynecologist to the Baltimore Home for Incurables, St. Agnes' Hospital and Mount Hope Asylum, Baltimore; a member of the House of Delegates of Maryland in 1910; who had conferred on him the degree of LL.D. by Washington and Lee University in 1912; author of several books dealing with the Civil War; widely known as a teacher and gynecologist, died at his home June 26.

WILLIAM SIMION, professor of chemistry, an expert in autochromative photography, died at his summer home at Eaglesmere Park, Pa., July 19, 1916, from complication of diseases from which he had been suffering for some time, aged 72.

JOHN C. KNAUER, M.D., Reading, Pa., P. and S. class of 1886, aged 51, a Fellow of the American Medical Association, died in the Homeopathic Hospital, Reading, June 3, 1916. from septicemia due to an operation wound.

VO



1866-1916

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NEW YORK

TONSILS:

By James M. Parrott, M.D., F.A.C.S., Kinston, N. C.

It is commonly accepted by general practitioners and frequently taught in textbooks that chronic tonsilitis is caused by gastro-intestinal disorders, frequent exposure to cold, damp feet, rheumatic diathesis, repeated attacks of acute tonsilitis, tubercular diathesis, etc. My experience has taught me that this etiological statement is in nearly, if not all, cases misleading. Instead of causing this disease, most often they are results. For example, a tonsil becomes infected with staphylococci, streptococci, etc.; toxins are absorbed from the focus, and either through the blood or otherwise produce gastro-intestinal disorders. After removal of the infected tonsilar area the gastro-intestinal symptoms disappear, and the patient is restored to health with no further treatment.

It is a very obnoxious and dangerous teaching to insist dogmatically that tubercular diathesis causes chronic tonsilitis and by not explaining in detail leave the impression that tubercular infection is never through the tonsil. In my opinion, a diseased tonsil is a portal very frequently through which tuberculosis gains entrance to the body. So thoroughly am I convinced of this that I feel justified, if for no other reason, in advising removal of either part or all of a diseased tonsil to prevent tubercular infection.

All small tonsils are not healthy. In fact, some of the worst tonsilar cases I ever saw were small, buried tonsils. All enlarged or prominent tonsils are not diseased. It is a fact that there is hyperplasia of nearly all lymphoid tissue in children of tubercular diathesis. No reason satisfactory to my mind has been offered for this. I surmise that it is a part of nature's campaign of defense, and if this is true, so long as such enlarged tonsils cause no disturbance by mechanical action, why should they be removed?

Gastro-intestinal diseases and the two diathesis already mentioned lower body resistance in one instance or a lowered body resistance accompanies the other, and hence one suffering from such disease or diathesis is more liable to tonsilar infection than a normal person. However, to state that they cause chronic tonsilitis is another case of "putting the cart before the horse."

My experience has led me to think that many practitioners regard the chief and most frequent damage done by diseased tonsils as almost, if not entirely, local. As a matter of fact, such is not the case. While the pharynx, larynx, etc., may be and often are affected by the extension of tonsilar disease, as evidenced by attacks of croup, dryness or "dripping" of throat, headaches, etc., the greatest harm done by infected tonsils (nearly all diseased tonsils are infected) is to organs at a distant part of the body.

The bacteriologist in our hospital has shown that chronic tonsilitis is nearly always caused by a mixed infection (streptococci, straphylococci and diplococci). Very frequently colon bacilli, and even typhoid bacilli, cause chronic tonsilitis, while tubercule play a frequent causative rôle.

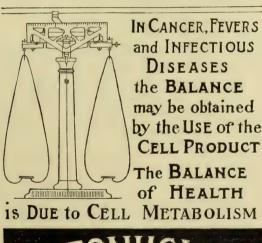
Cervical adenitis is usually caused by infected tonsils, and generally disappears permanently after proper tonsilar operation. Headache, nervousness, and even stupidity, may be produced by



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diseased tonsils, and it is a very frequent observation that earaches and middle ear diseases have their cause in the tonsils.

Organs more distant than those in the head and neck are sometimes seriously and permanently impaired by infection or toxins from diseased tonsils. As an illustration of distal effect, let me cite a case. Lula A.—Nine years old; referred for operation by a physician who had correctly diagnosed the case as of tonsilar origin. For several years she had been subject to attacks of tonsilitis. For two years her general health had been bad. Examination revealed mitral regurgitation and low hemoglobin percentage. The tonsils were small, and on casual examination appeared normal. A very careful examination showed both badly diseased and deeply buried. After removal bacteriologic examination showed streptococci, staphylococci and diplococci in the raw, nasty tonsil crypts. The child rapidly improved, and while the heart murmur has continued and will be permanent, yet she is robust comparatively.

From these hop-skip-and-jump remarks please do not gather the idea that I think tonsils are "the root of all evil," or that their removal will cure all human maladies. Most assuredly I do not. I wish to make and emphasize the point that diseased tonsils cause a great deal of serious harm, both immediate and remote, and that such damage is often overlooked.

Let me say in conclusion that I do not advocate the partial removal of every tonsil or the complete enucleation of all tonsils. Many tonsils are being partially enucleated which should be completely removed and many completely enucleated which should be only partially removed. The throat specialist must realize that we are now in the era of physiological surgery, and that pathological surgery was the surgery of yesterday. To say that because a tonsil is diseased and therefore a tonsillectomy always should be done is to stand with the gynecologist of 20 years ago. In those days of "high" surgery ovaries were removed promiscuously, even on suspicion. We know better now, and even parts of ovaries, yes, more, we are grafting sections of ovarian tissue, thus recognizing the fact that ovaries have functions. So in tonsil work we must view the case from the standpoint of physiologists, and not entirely as pathologists. We must admit and so act in our work that nature is an expert and economical architect. We should remove the decayed sill when possible and not destroy the entire house because a small part is rotten.—The Charlotte Medical Journal.

TRUANTS BECAUSE OF THEIR PHYSICAL CONDITION?

STUDIES of the causes of truancy show that environment plays a very prominent part, and that family quarrels, squalid homes, gang life and overstrict teachers contribute each their share. Physicians, however, have felt that the physical condition of the truant might be an important factor, and that a correction of physical defects in school children would, perhaps, tend to reduce truancy. If accurate data were available for truancy in this city during the past 10 or 20 years, it would not be a difficult matter to observe the effect of the work of school medical inspection conducted by the Bureau of Child Hygiene. Unfortunately, comparative records of this kind are not available; we merely know

In Diarrhea of Infants

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As soon as the stools lessen in number and improve in character, gradually build up the diet by substituting one ounce of skimmed milk for one ounce of water until the amount of skimmed milk is equal to the quantity of milk usually given for the age of the infant. Do not give any milk fat until the baby has completely recovered.

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that last year among the nearly 800,000 pupils in the public

schools there were 21,942 truants, less than 3 per cent.

In order to throw some light on the question here raised, the Bureau of Attendance of the Department of Education some time ago requested the Bureau of Child Hygiene of the Department of Health to undertake a physical examination of truants summoned before the District Superintendent for a hearing. Eighty-five such truants have thus far been examined, and while this number is entirely too small to furnish a basis for definite conclusions, a preliminary report on the results obtained may not be without interest.

In nine instances the family history appeared to have a definite bearing on the truancy, the father being alcoholic in five cases, insane in one, and tuberculous in one. In two cases the brother of the truant was epileptic.

In two instances the truant himself gave a history of convul-

sions.

In eight instances the examining physician reported "stigmata

of degeneration present."

The blood pressure showed nothing abnormal, being below 100 in 14 instances, between 100-115 in 30 instances and over 115 in 38 instances. It was not tested in 3 instances.

There were 64 truants with some obstruction to nasal breathing.

Many of these obstructions were of traumatic origin.

Eyesight was defective in 27 out of 77 truants, not being tested in 8

The proportion of bony deformities was high, as witness the following found in 84 truants:

Bowed legs	2	cases
Lordosis	3	cases
Kyphosis		
Scoliosis	IO	cases
Flat foot		
Rhachitic chest	2	cases
	-	

26 cases

An irritable heart was reported in 7 cases, and endocarditis in 10. The heart was normal in 68 cases.

Pulmonary tuberculosis was encountered in only 1 individual.— Weekly Bulletin of the Department of Health, City of New York.

THE CAUSE OF TYPHUS FEVER.

Much progress has been made in recent years in solving the problem of the cause of typhus fever. Perhaps the most important demonstration from a practical point of view is the discovery by Nicolle, Ricketts and others that the disease is transmitted by the body louse. The demonstration also that apes, monkeys and guinea-pigs are susceptible to the typhus virus makes it possible to conduct systematic experiments on animals, and in the course of such experiments it has been shown quite conclusively that the disease is not caused by a filterable virus as we ordinarily understand it. And so the search for a bacterial cause has continued.

In 1914 Plotz described a gram-positive anerobic bacillus obtained in culture of the blood from patients with endemic typhus



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in New York and of typhus fever in immigrants in quarantine. The medium consisted of glucose agar and unheated, unfiltered ascitic fluid with a specific gravity of about 1.015. Subsequently the same bacillus was recovered from guinea-pigs and monkeys inoculated with typhus blood, and specific agglutination and complement fixation obtained with the blood typhus patients after the crisis. The evidence is consequently strongly in favor of at least some close relationship between this bacillus—the Bacillus typhiexanthematici—and typhus fever; it can hardly be asserted, however, that it has been demonstrated conclusively to be the specific cause of typhus fever. It is not apparent that injections of this bacillus in animals give rise to the same reactions which occur after the injection of typhus blood; of course, it must be acknowledged that failure to produce reaction and failure to protect animals against the virus in typhus blood do not necessarily imply that the bacillus is not the cause of typhus, but they make the demonstration of the true relation of this bacillus to typhus fever difficult.

The extensive outbreaks of typhus in European countries involved in the war, especially Serbia, would seem to offer unexcelled opportunity for the further work necessary to settle the etiologic problem of this disease; in spite of the abundance of the material, however, the conditions in war do not seem to be favorable for scientific investigation. Thus we are informed that the American Red Cross Commission found it practically impossible to do systematic work during the last typhus epidemic in Serbia, and the recent work in Mexico by Olitsky and others was interrupted very soon after it had been started. From the latest Mexican work we see that the results again indicate the close relationship between the bacillus of Plotz and typhus, and we may hope that independent workers under favorable conditions will secure results before long of definite significance.

In connection with this work on typhus we note the melancholy fact that another investigator has died from the disease. Carlos E. Husk died March 20, 1915, from typhus fever contracted in the course of the work mentioned in the foregoing. There is probably no disease that has claimed so many victims among physicians and nurses as typhus. It is said that during 25 years, of 1230 physicians attached to institutions in Ireland, 550 died of typhus. Since the war, again, typhus has claimed many victims from physicians, among them, for instance, Jochmann, who was doing splendid work in the study of infectious diseases. And the martyr roll of typhus now includes three American investigators who have died from typhus contracted while voluntarily investigating the disease in Mexico—Conneff of the Ohio State University expedition, Ricketts, who accomplished so much, and now

Husk.—Journal of the American Medical Association.

NONSPECIFICITY.

J. W. JOBLING AND WILLIAM PETERSEN, Nashville, Tenn. (Journal A. M. A., June 3, 1916), question the common belief as to specificity of disease and give the results of their studies in this regard after noting previous work pointing toward their conclusions. Among these they refer to the work of Schmidt and von Wagner, the former of whom called attention to the fact that, following vaccine therapy of any kind, the body becomes



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resistant to a variety of the commoner affections. It is in the domain of coagulation disturbances that therapy of this nature has received particular attention in the past; in hemophilia, for example. Originally, the slight leukocytosis was regarded as the potent factor, but for this there is no warrant. Recently the dermatologists have had results from nonspecific treatment, and the therapy of typhoid fever has also been a chief avenue of approach to the problem. Latterly the hematopoietic organs have come to be recognized as the chief source of antibodies, and it would seem reasonable to suppose that various agents act as stimulants to the hematopoietic tissue which then floods the body with antibodies, overcoming the infection. The importance of the leukocytic reaction has been emphasized by some, but the authors do not recognize this. They say we must keep in mind that in typhoid fever it does not occur in the normal course of recovery. The hyperpyrexia, however, is to be considered, in their opinion. They have pointed out before that in experimental animals the intravenous injection of bacteria, kaolin, protein split products and trypsin is almost invariably followed by more or less marked mobilization of serum protease and usually of lipase, and a similar reaction occurs in patients, but not to the same degree or as regularly as in animals. A variety of reactions may occur from such a mobilization of ferments, and it may be there is a process of detoxication in that the toxic fragments are hydrolized to lower and to nontoxic forms. The influence of the fatsplitting ferments mobilized is as yet obscure. In conclusion, the authors say: "It seems probable that the fundamental change on which the majority of the above-described biologic reactions are based is one of colloidal dispersion, in that the injections bring about a less dispersed state affecting not only the serum proteins, but also the serum lipoids. Such an alteration is sufficient to account for the fluctuations in the ferment-antiferment balance, and in the coagulation mechanism, as well as in the opsonic and complement powers of the serum, although it does not at present explain the increased antibody titer. With this as a basis we can understand that so many and diverse substances can bring about a reaction almost identical clinically and therapeutically. But here, as in so many other biologic problems which have to do with that most complex of tissues, the blood, it seems probable that no single factor can be identified as responsible for all the changes which occur, but that a whole train of events is inaugurated when the equilibrium of some of the delicate serum balances is disturbed, all of which tend toward a condition favorable for recovery from infection."—Journal of the American Medical Association.

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The Prophylactic Treatment of Hay Fever.

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So far as the preventive treatment of hay fever is concerned, there is reason to believe that some real progress may now be recorded—an agreeable augury when one reflects upon the long and profitless search for a curative agent worthy to be called a specific.

Ragweed pollen extract, for example, gives promise of being an efficient immunizing agent in the autumnal type of hay fever. Its use is based upon the generally accepted theory that the ordinary hay fever of late summer and early fall, with occasional exceptions, is due to the pollen of ragweed, or to the toxic effects of other pollens closely analogous to ragweed in their protein content.

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While good results have attended the use of ragweed pollen extract after the disease has become established, the best effects are said to be obtained by early immunization. This prophylactic treatment should begin a month or six weeks before the expected manifestation of symptoms.

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Lilly Ampoules are encased in strong paper tubes, and may be conveniently carried in the pocket or medicine case. Each individual ampoule and each tube is fully labeled, making it unnecessary to keep the original container for identification.

The Lilly line of ampoule is said to meet the requirements of the most exacting clinician both in quality and range of items listed.

A Safe and Reliable Cardiac Tonic.

It is a matter of common observation in the treatment of functional cardiac disorders that all remedies must be avoided that tend to cause reactionary exhaustion or depression following their initial effect. To use a homely but more or less apt illustration, the driver of an unruly, high-strung horse should not pull it up suddenly or harshly, but always gently and firmly. Therefore, when the heart is irritable or unruly, as it were, it can best be regulated by a remedy that will accomplish this purpose in a gentle yet firm uniform manner. Clinical experience extending over many years has shown that Cactina is such a remedy and can be relied upon as a most satisfactory tonic in all functional cardiac derangements.

At any rate, the more one uses Cactina Pillets in the heart cases constantly being met in every-day practice, the more one grows to realize the value of this remedy. Prompt and positive in effect, Cactina has the great advantage of being perfectly safe and free from any tendency to cumulative action. It should, however, be constantly borne in mind that Cactina is not a powerful cardiac stimulant, but, on the contrary, is a tonic that acts by sustaining and steadying the heart.

Cactina has no contra-indications, and the experience of many thousands of competent physicians has conclusively shown that it can be used under any and all conditions with implicit confidence not only in its freedom from harmful or unpleasant effects, but equally in its capacity to support and strengthen the heart's action and thus help it to do its work.

Augmentation of Systemic Resistance to Infections.

CLINICAL experience seems to show quite clearly that certain infections may be reduced in severity by the administration of ECTHOL (Battle). Thus in erysipelas and furunculosis, to select two infections which have responded to the internal use of ECTHOL, it has been found that ECTHOL exerted an influence on the process of a most beneficial nature, which probably is best explained by assigning to ECTHOL the positive power of increasing the phagocytic action of the blood stream. Typhoid fever and smallpox are also diseases which indicate the employment of ECTHOL.

"I PRESCRIBED Tongaline for two cases of tonsilitis, after all other treatment had failed, with such success that both made a rapid recovery."

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Medicine and Surgery



The Medical Journal Company

BALTIMORE

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Volume Fifty-Nine Number Nine SEPTEMBER, 1916

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is minimized, and often overcome, by the judicious use of INTEROL, which softens the fecal mass, and lubricates it all along the colon and recoum, past the sphincter, without irritating or abrading the mucosa.

Thus, there is less danger of ulceration; bowel evacuation is facilitated, and the patient made happy on this latter account alone,—entirely aside from INTEROL'S beneficial relation to the accompanying autotoxemia.

Also, INTEROL is of great comfort to the patient suffering from hemorrhoids or fissures, because it makes the fecal mass soft and plastic, so that it is passed with less difficulty and discomfort, and congestion is relieved. For these reasons, INTEROL* has been suggested as a prophylactic measure of these conditions, both for adults and children.

*INTEROL is more than "ordinary mineral oil": (1) it possesses effective lubricating body so that it clings to the fecal mass—INTEROL has efficient "spread and mix" properties (2) no "lighter" hydrocarbons to disturb the kidneys (3) no sulphur compounds to disturb digestion (4) no odor or flavor, so that the patient can take it and derive its benefit.

Pint bottles at druggists. *INTEROL booklet on request.

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you are not getting the results you would were you using the original. On the contrary, your patients fail to receive the benefits they hope for—or you to accomplish the effects you have a right to expect.

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With Marked Beneficial Action Upon the Nervous System. To be Relied Upon Where a Deficiency of the Phosphates is Evident

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might have been prevented by the timely use of our "Elixir Chloro - Calcium"

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"Elixir Chloro-Calcium S & D"—5 gr. of the c. p. salt to the fldrm.—never disturbs the patient's stomach.

A pithy pamphlet that tells other facts about it awaits your pleasure.

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BALTIMORE-MARYLAND

Hygiene and Public Health, which will be established in Baltimore. Dr. Welch will also study the manner in which England has been organized in scientific and other lines for the war as head of the National Academy of Sciences. He will be accompanied by Dr. George Ellery Kale, chariman of the organization committee of the academy.

Dr. James J. Mills, Baltimore, sailed for France on the Rochambeau, August 5, for war service with the French army.

Dr. Howard Bratton, Elkton, has been appointed division physician of the Pennsylvania system during the absence of Dr. Henry A. Mitchell, chief surgeon of the First Infantry, Maryland National Guard, who is now on the Texas border.

Drs. Howard A. Kelly and Thomas S. Cullen, Baltimore, are spending the summer near Magnetawan, Ont.

Dr. C. Howard Moses of Baltimore has been appointed chief resident surgeon of the Youngstown (Ohio) City Hospital.

DEATHS.

Dr. William T. Cathell, the well-known throat specialist, 1636 East Baltimore street, son of Dr. D. W. Cathell, died August 29, 1916, at the Hotel Emerson, from an organic affection of the heart, aged 51 years.

Andrew Jacob Koontz, M.D., Independence, Va., College of Physicians and Surgeons, Baltimore, Md., 1887; a practitioner and druggist, died at his home June 20 from heart disease, aged 57 years.

ROBERT M. MARSHALL, M.D., Shenandoah Junction, W. Va., University of Maryland, 1886; for half a century a practitioner of West Virginia, died June 22, aged 72 years.

JACOB H. HARTMAN, M.D., Baltimore, Md., a graduate of the University of Maryland and of Princeton, died at Mercy Hospital July — from a complication of diseases, aged 68 years.

JOHN SELBY MORRIS, M.D., Charleston, W. Va., a graduate of the College of Physicians and Surgeons, Baltimore, 1904; a fellow of the American Medical Association, died at his home May 12, aged 38 years.

James B. Drake, M.D., Norwich, N. Y., College of Physicians and Surgeons, Baltimore, 1882; a member of the Medical Society of the State of New York; visiting physician to the Norwich Hospital and Chenango Valley Home, died suddenly while driving his automobile July 12, aged 63 years.

THOMAS P. REVILLE, M.D., Folkston, Ga., College of Physicians and Surgeons, Baltimore, 1887; a fellow of the American Medical Association, and a physician of Charlton County, Ga., died at his home June 20 from heart disease, aged 59 years.

ROMULUS ALONZO WHITAKER, M.D., Kinston, N. C., College of Physicians and Surgeons, Baltimore, 1885; a member of the Medical Society of the State of North Carolina, died at his home July 18 from typhoid fever, aged 59 years.

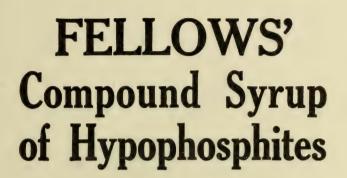
OTHO C. WRIGHT, M.D., Jarratt, Va., College of Physicians and Surgeons, Baltimore, 1893, aged 48 years; a fellow of the American Medical Association; a member of the State Board of Medical Examiners and State Board of Health, and once president of the Medical Society of Virginia, while driving his automobile over a grade crossing at Owens' Store, July 8, was struck by an Atlantic Coast Line freight train and instantly killed.

Benjamin Wolff, M.D., New York, Baltimore University, 1901, aged 42 years; assistant surgeon for eye and ear department of Sydenham Hospital and the German Policlinic, died at his home July 23.

George W. Righter, M.D., Cynthiana, Ky., Homeopathic Hospital College, Cleveland, 1872; a Confederate veteran; died at his home July 25 from arteriosclerosis, aged 72 years.

JOSEPH P. EWING, M.D., Manchester, N. C., Baltimore University School of Medicine, 1892; formerly of Dillon, S. C., died at a hospital in Fayetteville, N. C., July 21.

Samuel William Hammond, M.D., Lambert's Point, Norfolk, Va., University of Maryland, Baltimore, 1905, aged 43 years, while answering a professional call July 23, sustained a skull fracture in a collision between his motorcycle and a trolley car, and died in the Norfolk Protestant Hospital July 24.



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NEW METHOD OF MAKING ANTI-HOG-CHOLERA SERUM.

SPECIALISTS FIND WAY TO PRODUCE A CLEAR, STERILIZED PRODUCT FREE FROM FOOT-AND-MOUTH VIRUS.

Office of Information, U. S. Department of Agriculture.

A NEW method of preparing anti-hog-clorea serum, which permits the economical production of a clear sterilized product, has just been described in the Journal of Agricultural Research of the U. S. Department of Agriculture. The advantage claimed for the new method is that it makes possible the production of an antihog-chlorea serum which can be quickly sterilized by heat to a point that will absolutely kill any germs of foot-and-mouth disease and so yield a serum that is absolutely safe even if taken from a hog which might harbor foot-and-mouth disease and yet give no indication of being infected.

The method, as described by its discoverers, Drs. Marion Dorset and R. R. Henley of the Biochemic Division, Bureau of Animal Industry, consists in adding a slight amount of an extract from ordinary white navy beans to the defibrinated hog-choleraimmune blood, which has been the form of the serum used in the past. The addition of this bean extract causes the red cells of the blood to agglutinate, and when the mixture is whirled on a centrifuge the red cells pack together and form a rather stiff jellylike mass. It is then possible to pour off a clear serum, leaving behind the red cells, which play no part in preventing hog cholera, and which, in fact, simply tend to dilute the serum and render its sterilization by heat impracticable. To increase the yield of clear serum the discoverers added a small amount of ordinary salt, and found that they obtained from 70 to 74 per cent. of clear serum. The clear serum thus obtained, it was found, could be heated for 30 minutes at a temperature of 60 degrees centigrade without changing its constituency or lessing in any way its effectiveness in preventing hog cholera. The heating to this point for this time is more than sufficient to kill any germs of foot-and-mouth disease which might accidentally be present. Practical tests with hogs show that probably all of the antibodies useful in combating hog cholera were retained in the serum, and the red cells extracted contained so few, if any, of these valuable bodies as to make the residue of red cells useless in preventing the disease.

Before the clear serum was developed many attempts were made to sterilize by heat in a practicable way the ordinary defibrinated blood. It was found, however, that heating the old product up to 60 degrees centigrade resulted in more or less complete coagulation of the defibrinated blood, and in the destruction of the serum so far as its commercial worth is concerned. It was found that the highest temperature that could be used was 50 degrees centigrade, and it was necessary to keep the old serum at this temperature for 12 hours to make certain that the virus of foot-and-mouth disease was killed. Heating serum at a steady temperature over this long period in ordinary practice is difficult and too expensive.

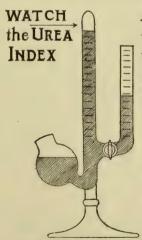
Attempts were also made to make a clear serum by centrifugalizing. It was found, however, that while the centrifuge would separate to some extent the red cells, they were in such shape that it was difficult to separate the serum completely. An important quantity of antibodies were left behind in the red clot,



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REED & CARNRICK 42-46 GERMANIA AVE. JERSEY CITY, N.J. and the resulting product was a cloudy rather than a clear serum. With this process, moreover, it was possible ordinarily to secure only about 50 per cent. of serum. Under the new method it is possible to secure as high as 74 per cent. of clear serum, which in actual test has proved to be fully potent. This clear serum, moreover, can be completely sterilized in 30 minutes, whereas the old serum had to be heated steadily for 12 hours.

The new form of serum, as far as the department knows, is not yet being made or put on sale by the commercial serum laboratories. As this process was discovered by the Federal Govern-

ment, anyone in the United States is free to use it.

THE THREE "C'S" OF CARING FOR MILK IN THE HOME.

Office of Information, U. S. Department of Agriculture.

THE three "C's" for the proper care of milk in the home, according to the dairy specialists of the U. S. Department of Agri-

culture, are: Keep milk Clean, Cold, Covered.

Milk is a highly perishable food, and the length of time it will remain sweet and safe, especially for children, depends, the specialists say, almost entirely upon the constant care it receives from cow to consumer. Milk passes through three agencies—the producer, the dealer and the consumer. If the first two have done their part, clean, safe milk will be delivered, thoroughly chilled, to the consumer. The consumer's responsibility begins the moment the milk is delivered at his doorstep.

Because milk poured from vessel to vessel on the street is very liable to contamination from dust, manure particles and germs, milk is best delivered in capped bottles. If bottled milk cannot be obtained, the housewife should try to have someone in the family receive the milk in a clean, scalded utensil; cover it instantly, and put it without delay into the refrigerator or the coldest available place. Under no circumstances should an uncovered pitcher, bowl or pan be left out on the porch to receive bulk milk. The vessel, both before and after the milk is poured into it, is accessible to flies, and collects particles of dust and dirt.

Even in the case of bottled milk, however, the consumer must see that the bottle is not left out in the heat for a moment longer than is necessary. Milk should be delivered and kept at a temperature of 50 degrees F. or lower—the colder the better. At such temperatures bacteria develop very slowly, and milk undergoes little change until consumed. A slight rise in temperature above this point, however, permits bacteria to multiply rapidly, and brings about rapid deterioration of the milk, which may render it unfit for ordinary use and make it highly dangerous for babies and little children. For this reason bottled or other milk should not be allowed to remain in a warm place, as on a sunny porch or in a hot kitchen, for a moment longer than is necessary.

DELIVERY OF MILK IN HOT WEATHER.

In hot weather the best plan is to have the milkman put the milk directly into the refrigerator, because at that time of year milk cannot be kept properly without ice. If a refrigerator is not available, provide a small box containing ice, and if ice is unobtainable, provide some tight container with insulated walls that keep the heat from getting rapidly to the cold milk. A home-made

Mellin's Food is successfully used in

Summer Diarrhea for it furnishes

immediately available nutrition well suited

to spare the body-protein.

to prevent a rapid loss of weight.

to resist the activity of putrefactive bacteria.

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BRISTOL-MYERS CO.



fireless cooker is admirable for this purpose, especially if partially filled with ice. In the absence of any of these devices, arrange with the milkman not to leave the milk in the sunlight, but to put it in the coolest, shadiest place around the house.

HANDLING MILK IN THE HOME.

In handling milk around the home, do not pour it from one vessel to another until it is to be consumed. Do not let the bottle of milk remain out of the refrigerator a moment longer than is necessary. Keep the milk covered, using paper caps or an inverted tumbler on bottles, or storing it in covered utensils. Any household utensil that is to be used as a vessel for keeping milk

should first be cleaned thoroughly and scalded.

Before opening a bottle of milk, wash and wipe the neck and outside of the cap with water and a clean cloth. The little depression on the top of the cap may collect dust or water, and any milk that leaks out may attract flies. Lift out the cap with a pointed instrument, so that the outside of the cap, which may be contaminated, will not be pushed down into the milk. Each time the milk is to be poured from the bottle it is a wise precaution to wash the neck as described.

MILK IN A REFRIGERATOR.

The refrigerator where milk is stored should be cleaned regularly, especial care being given to keeping the drip pipe free and clean. The ice rack also should be cleaned, and any place where food is kept or milk stored should be scalded occasionally with sal-soda solution. The refrigerator, even though cold, may quickly be contaminated by a few drops of spilled milk, or by small particles of food. No matter how clean the refrigerator, milk should never be kept in an open vessel. As milk absorbs odors easily, such food as fish, cabbage or onions should not be kept in proximity to it.

CLEAN EMPTY BOTTLES.

As soon as a milk bottle is emptied, rinse it thoroughly with cold water. Do not return dirty bottles, and do not use milk bottles except to hold milk. Returning dirty bottles to the milkman may mean that a few days later either you or your neighbors will get contaminated milk. Milk bottles should never be taken into a sickroom. In case of infectious or contagious disease, all bottles should be boiled thoroughly, and should not be returned to the dealer without the express permission of the attending physician. Such diseases easily can be made epidemic through disregard of this precaution.

WHERE THERE ARE CHILDREN.

Care of milk, important for all, is a vital necessity in a home where there are children. It is absolutely essential to the safety of babies. No intelligent mother will leave to an ordinary servant the task of caring for or preparing the milk for her baby. Mothers of small children should get from their own physicians explicit directions for the proper handling of milk and for cleaning and sterilizing nursing bottles. Pamphlets on infant-feeding may be obtained from the municipal milk stations or health officers. Milk for babies cannot be kept too cold, and too much care cannot be given to keeping it clean and covered.

Further information on this subject may be had by writing to



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Following this suggestion, I offer a few large lots, 125' x 250', in a new and growing Northwestern development just outside of Baltimore City at less than 4 cents per square foot. Mail a postal for maps, pictures and cash discounts. Also "Easy Terms".

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Used with conspicuous success in Uterine Congestion, Head-ache, the Reflex Neuroses and whenever a reliable antispasmodic or sedative is required.

Affords hepatic stimulation without purgation---a true cholagogue.

PEACOCK CHEMICAL CO.

St. Louis, Mo.

the U. S. Department of Agriculture, Washington, D. C., for Farmers' Bulletin 413, "Care of Milk and Its Use in the Home."

PREVENTION OF INFANTILE PARALYSIS.

To control the present epidemic of infantile paralysis, according to a statement issued by the United States Public Health Service recently, the chain of infection between persons harboring germs of the disease and the well members of the community should be broken. Infantile paralysis is probably caused by a very minute organism found in the nasal, mouth and bowel discharges of those who have the disease or who are carriers of the germ without themselves suffering from the ailment. All of the steps in the spread of the infection are not known, but if this germ can be prevented from passing from the infected to the well person, the disease will cease.

Infantile paralysis is not a disease of recent origin. Sporadic or scattered cases have occurred throughout the country for many years, but it is only during the last decade that the infection has assumed epidemic proportions in the United States. The present epidemic in New York City, on account of its magnitude and virulence, has awakened the residents of many communities to the danger of the importation of the disease into their own midst. This danger is real, but if due precautions are exercised, it is believed that the epidemic will subside.

The actual control of the present epidemic must be left to the city, State and Federal health authorities. These organizations will properly quarantine and care for affected persons, prescribe sanitary measures and limit as may be necessary the travel of individuals in order to protect neighboring districts from the infection. Individuals and communities, however, can do much

toward their own protection.

Poliomyelitis is probably spread, directly or indirectly, through the medium of infective secretions. Account must therefore be taken by communities of every means by which such secretions are disseminated. Promiscuous expectoration should be controlled. The common drinking cup affords a method for the interchange of material of this nature, and should therefore be abolished. Rigid cleanliness of glasses and utensils at soda fountains, in saloons and other public places should be enforced. Flies, roaches and other vermin, by coming in contact with infective secretions, may possibly convey them to our food and thus directly bring about the development of disease. Therefore, eliminate insects. Street and house dust bear a definite relation to the spread of many infections, and it is not unreasonable to presume that they may be a factor in the dissemination of infantile paralysis. Maintain strict cleanliness of streets, yards and alleys in order to prevent the breeding of insects and other vermin. See that all garbage and waste are properly cared for and collected at regular and frequent intervals. Guard all food supplies, especially milk and other perishable products. Digestive troubles of children arising from the ingestion of food of questionable quality may lower resistance. Assemblies of children in infected localities are to be discouraged, if not actually forbidden. While the above measures are in a sense general and applicable to many epidemic diseases, their importance should not be overlooked.

Individual preventive measures may be thus summarized:



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Summon a physician at once and immediately notify the health officer of the presence of the disease. If the disease is present in the community, medical aid should be sought whenever a child is sick, no matter how light the illness; many cases of infantile paralysis begin with a slight indisposition. Should the illness prove to be infantile paralysis, isolate the patient, place a competent person in charge and reduce all communication with the sickroom to a minimum. Hospital care is preferable, not only for the child, but in order to better safeguard against the spread of the disease. The sickroom should be well ventilated and screened. Nasal and mouth secretions should be received in cloths, placed in a paper bag and burned. The clothing of the child, the bed linen and the excretions should be disinfected in the same manner as for typhoid fever—that is, by boiling, the long-continued application of 5 per cent. carbolic or other wellrecognized disinfectant. The same is true for dishes and drinking vessels. Nurses should exercise the same precautions as regards cleanliness of hands in caring for infantile paralysis patients as for those afflicted with other infectious diseases.

A child may convey the disease to others even after a lapse of several weeks. For this reason guarantine should be maintained for a considerable period, usually from six to eight weeks, and the above precautions should be adhered to during this time. Disinfection of the room following recovery is advisable.

DO YOU KNOW THAT-

Rural sanitation is a health protection to the city-dweller? It's foolish to educate a boy and then let him die of typhoid

The U.S. Public Health Service issues a free bulletin on the summer care of infants?

Exercise in the garden is better than exercise in the gymnasium? Clean water, clean food, clean houses make clean, healthy American citizens?

The State of California has reduced its typhoid death rate 70 per cent. in the past 10 years?

Rats are the most expensive animals which man maintains?

It is estimated that the average manure pile will breed 900,000 flies per ton?

Dirty hands spread much disease?

A high bred dog has a right to have his birth registered—so has a baby?

The U.S. Public Health Service guards American ports to exclude foreign disease?

Health is a credit with the bank of nature?

A clean garbage can is a good example to the family?

Filth breeds flies—flies carry fever? Slouchy postures menace health?

Health brings happiness—sickness sorrow?
The air-tight dwelling leads but to the grave.

Moderation in all things prolongs life? The careless spitter is a public danger?

The death rate of persons under 45 is decreasing; of those over 45 it is increasing?

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Tasteless-Odorless-Colorless

Is Neither Absorbed Nor Digested

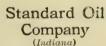
The fact that it is not absorbed by the epithelial cells and consequently not excreted through the milk, makes it a most satisfactory agent for nursing mothers.

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HIS Directory is maintained mainly for the benefit of local firms seeking the patronage of physicians and their families. Only well established and reliable concerns will be represented, and doubtless the space at our disposal will be constantly in demand. In responding to these exploitations, the reader will find it mutually advantageous to mention the MARYLAND MEDI-CAL JOURNAL.

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Capital,								\$1,210,700.00
Surplus	and	Un	divide	d F	rofits	s, .		323,572.91
Deposits	,	٠				٠.		7,676,460.75

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Danger Due to Substitution.

HARDLY another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwarv a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired luster to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Elixir Chloro-Calcium in Hay Fever.

It seems to be a well established clinical fact that calcium chloride is one of the most efficient drugs in the treatment as well as in the practical prevention of hay fever.

Emmerich and Loew of Germany first called attention to that use of this salt of calcium in 1013.

During 1915 Dr. Harold Wilson of Detroit, Mich., instituted a series of clinical experiments on twenty-six patients, all of whom had well established "hay fever histories," some also having a history of concurrent asthma.

A most interesting report of his clinical experience will be found in the issue of The Journal of the American Medical Association, dated March 4, 1916, to which we refer the readers for more complete data.

Twenty-two of the twenty-six "hay fever" patients, chosen at random for this experimentation, were treated exclusively with calcium chloride: the other four had been treated previously the same season with injections of "pollen solution"-but when the hay fever symptoms became more serious, were also given the calcium treatment; they are therefore grouped together with the twenty-two treated exclusively with calcium chloride, in the article above referred to. While in the



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series of cases treated and reported in 1913 by Emmerich and Loew, the calcium chloride treatment was kept up for a long time—as much as a whole year in some cases—Dr. Wilson did not administer this drug to any of his patients for a longer period than from eight to ten weeks before the expected annual attacks. In explanation of his method he says in the article above alluded to:

"Although it has been shown that the maximum calcium retention in the system occurs only after its prolonged ingestion, it remains to be proved that its optimum therapeutic effect in hay fever requires its daily use for a year before the expected attack. In some of the most favorable cases here reported, the relief secured came almost at once, or after taking at most only a few doses."

Among these interesting cases reported by Dr. Wilson are the following:

"Dr. W. A. K., aged 40, had had autumnal hay fever for fifteen years and slight asthma recently. July 7 calcium chloride was prescribed, I gm. three times a day. Patient reported in October that he had experienced only trifling symptoms at any time during the season."

"Miss C. S., aged 25, had had hay fever for nine years, beginning in early spring and lasting until the second week in October. She had asthma. Symptoms were marked June 30, the hay fever symptoms were distressing. * * * Calcium chloride 1 gm. was prescribed.

"September 25, the hay fever symptoms which were severe, disappeared after the second dose of the medicine. * * * During the summer she had occasional slight symptoms, which disappeared immediately when she took the medicine."

"Miss M. R., aged 24, had had autumnal hay fever seven or eight years; no asthma * * * * June II, calcium chloride was prescribed, I gm. three times a day, but owing to some gastric distress which it seemed to cause, the dose was much reduced for several weeks.

(Had she taken our Elixir Chloro-Calcium, this gastric distress would not have occurred.

—S. & D.)

"* * No hay fever symptoms were experienced until September 5, when there was slight sneezing and itching in the throat. During the rest of the season symptoms were practically absent."

Dr. Wilson's conclusions are:

"I. Some hay fever patients taking not less than 3 gm. of calcium chloride daily, even for a short time, are practically relieved from all hay fever symptoms.

"2. Calcium chloride may be taken in doses of 3 gm. daily for an indefinite time without any apparent injury.

"3. It is not indispensable in all cases for a hay fever patient to take calcium chloride over a long period of time in order to secure relief.

"4. Calcium salts may be given, even when the nature of the patient's sensitization is not known

"5. The clinical results from the administration of calcium chloride in cases of hay fever are such as to warrant its further trial."

In this series of clinical experiments Dr. Wilson used the crystallized calcium chloride dissolved in distilled water. He calls attention to the fact that in some cases there was quite some gastric irritation as a result. This confirms the quite universal experience of the medical profession that this salt of calcium, when given in water, is quite liable to set up rather marked and always distressing gastric irritation.

It was with the view of eliminating entirely that serious objection to this salt of calcium that, years ago, we began a series of laboratory experiments with calcium chloride.

Elixir Chloro-Calcium was the result.

One fluidrachm of this standardized solution presents five grains of pure calcium chloride.

It has a pleasant taste, is not astringent, does not induce or aggravate constipation, and positively never disturbs the most sensitive stomach, even when given for months consecutively.

Each dose should be administered uncombined in a wineglassful of water; it should not be compounded with other preparations. Please note particularly that it is incompatible with carbonates, phosphates, sulphates and tartrates.

In hay fever, either when it actually exists or is threatened, we earnestly recommend the administration of Elixir Chloro-Calcium in doses of from three teaspoonfuls to a table-spoonful, well diluted, three times a day, or oftener, if the urgency of the case requires more active medication.

Every "hay fever victim" has an accurate record of "the day" when the annual attack is expected. In anticipation of this annual attack it would appear to be good practice to begin the medication at least six or eight weeks in advance of "the day." Dr. Wilson's experience shows that when calcium chloride is used as a prophylactic of hay fever, it often practically prevents the onset, or at least in the majority of cases very materially minimizes the acuteness of the attack; and either result will surely be most acceptable to the patient.

When the patient is seen for the first time after the attack has begun, then the daily use of Elixir Chloro-Calcium will undoubtedly be very beneficial, since the acuteness of the suffering will be quickly ameliorated.

Just how and why calcium chloride acts so positively in this condition has not been clearly established. Dr. Wilson says: "At present it seems to me that this method of treatment can hardly claim to be more than 'reasonable empiricism.'" And then he pithily adds: "In view of the fact, however, that much other useful therapy rests on a no more secure foundation than this, there is no reason why we should not make a sufficient trial of this method, which has certainly many practical advantages."

Elixir Chloro-Calcium is offered to the mediical profession in pint and 5-pint bottles, and is thus sold by the leading retail and wholesale druggists.

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AND

GLYCO-HEROIN (SMITH)

The composition of Glyco-Heroin (Smith) is not being changed to meet any of the exemptions or privileges allowed under the so-called "Harrison Anti-Narcotic Law" and whereby it might be sold to the public.

Glyco-Heroin (Smith) will remain just what it always has been and just what it was always intended to be, viz: a stable, uniform and dependable product for the convenience and use of physicians only, in the treatment of Cough, Bronchitis, Whooping Cough, etc.

In prescribing Glyco-Heroin (Smith) use ordinary prescription blanks. Give the name and address of patient, your own name and address in full, your registry number and date when written, (no copy or other record required.)

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Samples for test in hay fever are available to members of the medical profession. Please address all requests for samples to us at Baltimore.

Elixir Chloro-Calcium is made exclusively by Sharp & Dohme, chemists since 1860, Baltimore, Md.; New York, Chicago, New Orleans, St. Louis, Atlanta, Philadelphia, San Francisco, Seattle, Richmond.

Sabalol Spray.

An all important detail in the prophylaxis of poliomyelitis is conceded by every recognized authority to be proper care of the nasal passages.

Occasional cleansing with weak salt solution is desirable, but to protect the nasal mucous membrane against germ invasion the use of an oily spray, or application, is essential, and for this purpose there is nothing more suitable and satisfactory from every standpoint than Sabalol Spray.

This well-known balsamic product has proven of great practical usefulness in keeping the nasal mucous membrane clean and free from catarrhal secretions and in a normally active condition. Antiseptic and emollient, it quickly allays inflammation, promotes healing of abraded or ulcerated areas, and coating the surfaces thoroughly affords effective protection against dust and infectious materail.

Sabalol Spray, sprayed into the nose—or applied on cotton pledgets—three or four times a day, may be relied upon as a most agreeable, efficient and dependable means of maintaining nasal cleanliness. Thus it will be found of exceptional utility in the practical attainment of nasal prophylaxis, with all that this means in safeguarding the individual from the germs of infantile paralysis. Samples to physicians on request.

T. C. Morgan & Co., 102 John street, New York City.

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ALKALOL is a scientific therapeutic agent based upon correct physiologic principles adapted for practical use.

Alkalol is adequately and absolutely adapted for use in healing diseased tissues, copying Nature's particular means to defend the tissues against bacterial attack or toxic irritation. It aids in the re-establishment of normal equilibrium, promotes cell activity, the resolution of crusts, exudates or pus and aids cellular metabolism. It soothes and relieves irritation and soreness, promotes healing and opposes bacterial action or the effect of toxins. It may be used upon any tissue, externally or internally, without the possibility of irritation, discomfort or danger. It is pleasant and agreeable to use. It does not stain. It is economical to use.

Alkalol is its own best advertisement, and its present extensive sale has been built on the recommendations of physicians who have personally tested its therapeutic properties.

Physicians who would like to know more about Alkalol and the value of its use in the treatment of diseased and inflamed mucous membranes will be interested in a little booklet issued by the Alkalol Company of Taunton, Mass., entitled, "Helping the Cell to Help Itself." This booklet, together with a liberal sample of Alkalol, will be mailed to any physician upon request.

Are You Seeking a Reliable Tonic?

Conservative medical men are neither asked nor expected to accept the opinions of conclusions of anyone else concerning the value of Gray's Glycerine Tonic Comp. The only request of the manufacturers is that the physician who is seeking a tonic, a dependable means of restoring the activity of the bodily functions, will give this remedy a fair and reasonable trial. To his conclusions as to the results obtained—his judgment as to the superiority of this remedy as a means of overcoming debility. inanition and malnutrition—the decision as to its use in the treatment of debilitated conditions is cheerfully left. Knowledge of what careful, painstaking physicians, however, are doing with Gray's Glycerine Tonic Comp. whenever a tonic is indicated leaves no doubt of what that judgment will be, for it has been shown beyond all possible question that this efficient therapeutic agent has no superior in its field of use.

If you have some troublesome case in which you would like to try "Gray's," write today to the Purdue Frederick Co., 135 Christopher St., New York City.

"I PRESCRIBED Tongaline very frequently as a remedy for excess of uric acid, which is often the cause of rheumatism, and it is my sheet anchor for that condition. I also find Tongaline very beneficial in muscular pains due to a sluggish liver and inactive bowels. When a patient comes to me complaining of soreness all over, I place him upon Tongaline, and it has never disappointed me."

A Pennsylvania physician reports: "For a patient with a swelling of the knee, rheumatic in character and an exaggerated flexion, which had existed for five months, I prescribed Tongaline with marked improvement."

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The danger of prescribing the ordinary opiates and hypnotics in neurasthenia, particularly in females, would be sufficient reason for preferring Pasadyne (Daniel), even if it did not possess a distinctive therapeutic value and one which entitles it to a place in the foremost rank of calming agents. It frequently happens that the need for a reliable soothing product arises in the management of a neurasthenic, and when it does no better choice than Pasadyne (Daniel). Samples may be had by addressing the laboratory of John B. Daniel, Inc., 34 Wall street, Atlanta, Ga.

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Medicine and Surgery



The Medical Journal Company

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Volume Fifty-Nine Number Ten OCTOBER, 1916

Annual Subscription
Two Dollars

Hard Dry Feces

are not only difficult to pass, but may give rise to (1) irritation and congestion of the rectum, which may influence fissures and hemorrhoids (2) by their physical pressure, they may affect prostatic and other genito-urinary conditions. These are in addition to (3) the effects of any autotoxemia that may arise.

HARD DRY FECES are often caused by over-extraction of fluid by the colon, or by lack of intestinal mucus, or both, but they are overcome by INTEROL, which not only lubricates them, but, being itself non-absorbable, it stays with them, and keeps them soft and mouldable so that they pass easily through constrictions.

With INTEROL well mixed in them, more HARD DRY FECES cannot form, but instead, SOFT PLASTIC FECES, so that the patient obtains evacuation without straining at stool, and life becomes worth living—so far, at least, as INTEROL'S combatting of obstipation-stasis-autotoxemia is concerned.

INTEROL* is more than "ordinary mineral oil": (1) it possesses effective lubricating body so that it clings to the fecal mass—INTEROL has efficient "spread and mix" properties (2) no "lighter" hydrocarbons to disturb the kidneys (3) no sulphur compounds to disturb digestion (4) no odor or flavor, so that the patient can take it and derive its benefit.

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A HIGH-GRADE institution for the care and treatment of those suffering from Nervous and Mental Diseases, Alcohol and Drug Addicts and general enfeeblement.

Located in the choicest suburb of the National Capital, surroundings ideal, buildings new, heated by steam, lighted by electricity, licensed by the District of Columbia, inspected and controlled by the Health Department of the City of Washington.

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That old fetid ulcer

that has thus far refused to heal, MAY heal up if you increase the coagulability of the patient's blood; some do, you know.

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in 3-fldrm. doses, well diluted, t. i. d., preferably an hour after meals, has worked wonders in some cases. It soon killed the odor and the healing started from the edges. It may do as well in the case you are now treating. Your druggist buys it only in pts. and 5-pts. Interesting clinical reports are yours for the asking.

SHARP & DOHME-Baltimore, Md.

Sole makers of "Elixir Chloro-Calcium" and many other "Quality Products"

indexed and made available in six different medical centers.

Those who are interested in this concerted study of endocrinology may with advantage communicate with the secretary, who will send full explanations of the aims of this association and a list of the charter members.

A Red Cross unit for service on the Mexican border is being recruited from among the nurses of the hospitals in Baltimore under direction of the Maryland branch of the American Red Cross, and will shortly be in readiness for any call from the national organization.

DR. LOUIS L. LLOYD, 639 West Franklin street, who is seriously ill at the Maryland General Hospital, suffering with stomach trouble, is reported somewhat improved. Dr. Lloyd has undergone several operations.

The September meeting of the Baltimore County Medical Association was held Wednesday, September 20, at the Sheppard and Enoch Pratt Hospital, Towson, on invitation of Dr. Edward N. Brush, medical superintendent.

DEATHS.

THOMAS HALL EMERY, M.D., Monkton, Md., University of Maryland, Baltimore, 1896, aged 43, a member of the Medical and Chirurgical Faculty of Maryland, sanitary officer of the Tenth District of Baltimore county, died at Saranac Lake, N. Y., August 15 from tuberculosis.

E. Forest Harbet, M.D., Wyatt, W. Va., College of Physicians and Surgeons, Baktimore, 1913, aged 32, died at his home recently from tuberculosis.

James Edward Leary, M.D., Lowell, Mass., College of Physicians and Surgeons, Baltimore, 1894, aged 42, formerly a member of the Massachusetts Medical Society, died at his home June 11 from heart disease.

CARY NELSON DUNLAP, M.D., Middlebrook, Va., College of Physicians and Surgeons, Baltimore, 1893, aged 46, died at his home August 2.

James D. Weaver, M.D., Eatonton, Ga., College of Physicians and Surgeons, Baltimore, 1882, aged 56; a member of the Medical Association of Georgia; a member of the State Board of Health, who was run over by an automobile in Eatonton August 4, died a day later as the result of his injuries.

JAMES G. FERGUSSON, M.D., Forfarshire, Scotland, Johns Hopkins University, Balti-

more, 1914, aged 27, who immediately after graduation went to England and on the outbreak of the war entered the Royal Army Medical Corps and was stationed at a base hospital for six months, afterward commissioned a subaltern in the "Black Watch," invalided for several months on account of wounds received in battle, was killed in action while serving with the British Army in France, July 14.

EDGAR J. SPRATLING, M.D., Atlanta, Ga., College of Physicians and Surgeons, Baltimore, 1891; a member of the Medical Association of Georgia; a member of the staff of the State Hospital for Epileptics, Palmer, Mass., from 1898 to 1900, and of the staff of the Matteawan State Hospital, Matteawan, N. Y., from 1904 to 1908; medical director of the Empire Life Insurance Co., Atlanta; captain of F Company, Fifth Infantry, Ga. N. G., was shot and killed by a woman at the State mobilization camp, Macon, Ga., August 25.

Dr. George Hauer Everhart, head of the Skin and Cancer Hospital and one of the most prominent physicians in this branch of medicine in Baltimore, died September 17 at 3 o'clock at his residence, 100 West 25th street, from a complication of diseases. Dr. Everhart's health had been poor for several months, but he was able to attend to his practice until about a week ago. He was 49 years old.

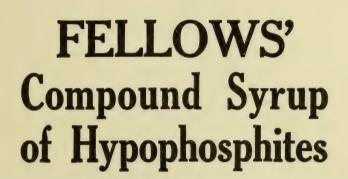
From Shrewsbury, Pa., where he was born, Dr. Everhart came to Baltimore and began the study of medicine, graduating from the University of Maryland with the class of 1890. He also studied in Paris and Vienna, where he specialized in diseases of the skin.

WILLIAM RUTLEDGE HUDSON, M.D., Huntingmore, College of Physicians and Surgeons, Baltimore, 1886, aged 52, a member of the Medical and Chirurgical Faculty of Maryland and a specialist on diseases of the nose and throat, demonstrator of anatomy in Baltimore Medical College, died in the Hotel Emerson, Baltimore, August 24, from nephritis.

WILLIAM RUTLEDGE HUDSON, M.D., Huntington, W. Va., Johns Hopkins University, Baltimore, 1911, aged 32, a fellow of the American Medical Association, while endeavoring to save his brother-in-law and brother from drowning in the Shenandoah River at Luray, Va., July 23, was accidentally drowned.

S. P. Watson, M.D., Loris, S. C., College of Physicians and Surgeons, Baltimore, 1884, aged 54, formerly a member of the South Carolina Medical Association, died at his home August 14.

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THE TREATMENT OF INFANTILE PARALYSIS.

The following excellent statement, concerning the treatment of infantile paralysis, was prepared for the State Department of Health for publication in *Health News*, and is here reproduced by

permission.

The treatment outlined is that adopted by most of the orthopedic surgeons at the present time, and is practically that employed by the physicians and surgeons now caring for the patients in the Health Department's hospitals:

THE TREATMENT OF INFANTILE PARALYSIS.

(With Especial Reference to the Earlier Stages.)

By Robert W. Lovett, M.D.,

Professor of Orthopoedic Surgery, Harvard University, and Surgeon to the Children's Hospital, Boston, Mass.

Infantile paralysis, or acute poliomyelitis, is a general infection characterized by its attack on the cerebrospinal axis. The pathological condition is essentially a hemorrhagic myelitis accompanied by a mild meningitis, both of which are often more widely distributed than the clinical symptoms would seem to indicate.

The changes in the cord consist of hemorrhages for the most part punctate most marked in the anterior of the gray matter and of a very extensive perivascular infiltration. The latter process causes a narrowing of the lumen of many of the terminal arteries supplying the motor cells, so that anemic changes even to the point of necrosis may occur in them. In addition to this, the posterior root ganglia are involved. From this stage the process in cases which do not die consists in an absorption of the infiltration about the vessels, allowing the blood to flow through them to anemic cells, which resume their function unless too severely damaged, and absorption of hemorrhage. This is the period of so-called "spontaneous improvement" supervening directly upon the acute process.

For purposes of treatment, the disease may be divided into three stages: (a) The acute stage, beginning with the acute attack and ending with the disappearance of the tenderness (matter generally of from four weeks to three months); (b) the convalescent stage, from the disappearance of the tenderness until the disease has become practically stationary (a matter of about two years); (c) the chronic stage, which begins about two years from the onset.

ACUTE STAGE.

From the pathology it may be seen that the physiological requirement of this stage is rest, in order that nature may be given a chance to repair the damage so far as possible by absorption. It is not reasonable during this time to excite the peripheral ends of hemorrhagic and anemic nerve centers by massage, electricity and attempted movements. The tenderness must be accepted as evidence of an active process still going on in the cord, and so long as it exists the patient should be let alone. Massage at this time may cause great increase of pain and tenderness, and may

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The success of Mellin's Food, therefore, depends not upon any one of the food elements of which it is made up, but upon the definite composition of "Mellin's Food as a whole" as a means to enable the physician to modify cow's milk to meet the requirements of infant feeding

in a Scientific, Rational and Efficient Manner.

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seriously delay recovery, and there is no evidence whatever to show that the use of electricity at this stage is of any value.

During this stage the patient should be kept quiet. Joints will not ankylose, hopeless muscular trophy will not occur, and by this proceeding the damaged cord will have the best chance to repair, and repair to the highest degree is desirable. One of our chief gains of late has been the avoidance of meddlesome and useless early therapeutic measures. There is evidence that the use of hexamethylenamin in monkeys diminishes in them the risk of infection somewhat, but there is nothing to show that it has any effect after infection has occurred, but as the drug in moderation is harmless, it is extensively used at this stage, and may be of value. There is no serum or drug or proceeding that is known to avert the infection or to limit the paralysis, although Netter of Paris has administered the blood serum of recovered patients to those in the acute stage in a small series of cases, but the method is wholly experimental. The use of strychnine and ergot is not to be advised. Deformities should at this stage be carefully prevented. The feet should be kept at right angles to the legs, to avoid the most common deformity, "dropped foot." The knees should be kept extended unless this causes great pain. Lateral curvature of the spine should be looked for, and, if it is present, attitudes increasing it should be avoided. These deformities may begin in the first weeks after the onset, and are largely preventable, and if they are allowed to occur, constitute a great obstacle in the later treatment.

When the tenderness has diminished, it is desirable to place the patient in a warm saline bath into which he may be lowered on a sheet once a day, and in which he may be able to move his limbs without pain. This is not desirable in the first days of the disease.

The treatment of this stage may be summarized as consisting of rest and the prevention of deformities.

THE CONVALESCENT STAGE.

With the disappearance of the tenderness, the acute process in the cord may be assumed to have reached a stage when therapeutic measures may be begun, but probably in no case should they be undertaken in less than four to six weeks from the onset. Of late much has been said as to the advisability of keeping such convalescents in bed for an indefinite time, and there is no question that most cases of this disease are allowed to overdo to their own detriment. But prolonged recumbency for children is unnatural and undesirable, physiologically and mentally. Moreover, it has been too much the custom to allow such children to sit and lie around until they have acquired flexion deformities of the hips, knees and ankles, and the best practice at present consists in getting these children into the upright position early in the convalescent stage.

The upright position is desirable not only because it antagonizes the evils of the permanent sitting position, but because the effort to balance on the feet instructively excites to effort a large number of muscles not otherwise to be reached, and is a valuable form

of muscle training.

If the patient can stand and walk without leg braces, so much the better. If such apparatus is needed to permit ambulatory activity, it should be used, but only in walking, and in early cases, never continuously. The most commonly required form of ap-

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Is an effective antiseptic and germicide, recommended by the medical profession to prevent the contraction of diseases through the respiratory tract.

In Hay Fever, Rhinitis, Pharyngitis, Laryngitis, Bronchitis, Measles, Scarlet Fever, Grippe, etc., Nose-Ions should be used in conjunction with all other treatments.

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paratus is the Thomas caliper knee splint, which holds the legs extended and prevents the foot from dropping. Crutches may or may not be required. If gastrocnemius paralysis is present, high heels should be continuously worn. If abdominal weakness is present (a condition most often overlooked), a supporting abdominal corset should be worn continuously, and scoliosis demands the same treatment from the outset.

A patient who has been long in bed when first put on his feet in braces is often unable to balance even if he has the requisite muscular strength, and the cultivation of his sense of equilibrium must be taken up separately. A good general rule with regard to the use of apparatus is that it should be used when the patient cannot stand without it or if, in standing, a position of deformity is assumed. Deformity leads to stretching of soft parts, which is always detrimental, and if persisted in, to permanent bony

changes.

Fatigue is always detrimental and a source of danger at this stage. Muscles are often more weakened than totally paralyzed in this disease (in the proportion of about 9 partial to 1 total paralysis in the Vermont figures), and the danger of overusing such partly paralyzed muscles even by mild activity is very great and retards recovery, and if persisted in does permanent damage. The worst advice that can be given to a patient in the light of our modern knowledge is to use his muscles as much as he can. Patients in the convalescent stage should be most carefully guarded in the matter of too much walking.

There are four therapeutic measures to be considered at this stage: (1) Massage, (2) Electricity, (3) Heat, (4) Muscle

Training.

(1) Massage empties mechanically the veins and lymphatics, it apparently helps to preserve the condition of the muscles, and it stimulates the flow of blood to the limb, and nothing more, so that too much must not be expected of it. It does not promote the transmission of impulses from brain to muscle, and its action seems wholly local. Given for too long a period, or roughly, it

does harm and fatigues the muscles.

(2) Electricity. The use of Faradic electricity gives a mild form of muscular exercise as will cause muscles to contract which will not do so voluntarily, and apparently does nothing more, and Galvanic electricity and the newer currents are supposed in some mysterious way to do good, but in experience of many years with and without electricity used in all forms and under many conditions of control, the writer has never been able to satisfy himself that it was of any use whatever in any given case. There is no possible objection to its use if strong currents are not used, provided the other measures of proved usefulness are also employed. But electricity has done an indefinite amount of harm in this disease, because it has deluded the parents, and often the physician, into thinking that the patient was being adequately treated by that alone, while serious deformities were developing and valuable time being lost.

(3) Heat is of value in promoting circulation and in raising the temperature of the limb to a point where muscular action is better performed. It also probably adds to the efficiency of massage by bringing the blood to the surface, and should precede

rather than follow the rubbing.

(4) Muscle Training is doubtless the most valuable and reliable



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of these measures. It consists in an attempt to drive an impulse from the brain to the affected muscle by a new route. The bundles of motor centers are connected with each other and with the muscles by most intricate connections, and in the partial destruction of such centers, which is more common than their total destruction (as shown by the predominance of partial paralysis), it is obviously reasonable to attempt to find and cultivate a new toute for an impulse by calling for the performance of a motion and aiding the performance of that motion by the hand. With subsequent attempts the voluntary control is likely to increase, and in the opinion of the writer we have in carefully-directed muscle training at this stage the most valuable part of our therapeutic equipment.

In Vermont, in a period of three months, a quantitative examination of the muscles (Lovett and Martin, American Journal of Orthopedic Surgery, July, 1916) showed that in cases treated by muscle training the expectation of improvement was as follows: Under treatment by an expert, 6 to 1; under home muscle training under supervision, 3.5 to 1; home training without

supervision, 2.8 to I.

Deformity in this stage is to be removed as it occurs. This can be done by stretching with or without anesthesia, tenotomy, myotomy, faciotomy. It must be remembered that it is easier to prevent than to correct deformity. When fixed deformity is present, it must be removed before undertaking mechanical or operative treatment.

THE CHRONIC STAGE.

This begins in about two years from the onset, and it is in this stage that the question arises of performing operations to improve function or to increase stability of the paralyzed joint. In the first class are to be mentioned tendon transplantation and nerve transplantation, and in the second the artificial ankylosis of joints (arthrodesis), silk ligaments to support dropped feet, the removal of the astragalus (astragalectomy) and similar

operations.

Surgeons of experience are agreed in all parts of the world that these serious operations are not to be undertaken until at least two years after the onset of the paralysis. But in this stage probably the majority of cases will still be non-operative, because the distribution and extent of the paralysis is too often of such a character as to make operative interference unlikely to be of much value. In such cases the same general principles of support by apparatus will remain much as they were in the preceding stage, but as one gets further away from the acute attack, the prospect of muscular gain becomes less good, a consideration which emphasizes the importance of seeing that the care of these cases in the early stages is as efficient as it can be made.—Weekly Bulletin of the Department of Health, City of New York.

BUBONIC PLAGUE.

It is a remarkable fact, confirmed by many observations, that many physicians who have devoted considerable labor to the study of a particular disease have themselves died of that disease. One of the most interesting examples is that of John Daniel Major, born August 16, 1634, in Breslau, a physician and naturalist of no mean ability. Bitten early by the wanderlust,



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he studied at Wittenburg, took courses at many of the schools in Germany, and finally went to Italy, where he received the degree of doctor of medicine at Padua in 1660. Returning to his own country, he resided for a short time in Silesia, and in 1661 married at Wittenburg, Margaret Dorothy, a daughter of the celebrated Sennert. The following year his young wife was stricken with plague and died after an illness of eight days. Distracted by his loss, Major wandered up and down Europe studying plague wherever he found it, in the hope that he might discover a cure for the disease which had bereaved him. Spain, Germany, France and Russia were visited by him. He settled in 1665 in Kiel, where he was made professor of botany and the director of the botanical gardens. He made frequent voyages, however, always in quest of the remedy for plague. Finally, in 1639, he was called to Stockholm to treat the gueen of Charles XI, then ill with plague. But before he could render her any service, he contracted the disease, and died on the third of August.

The bubonic plague of today is identical with the black death of the Middle Ages. Primarily a disease of rodents caused by a short, dumbbell-shaped microscopic vegetable, the pest bacillus, it occurs in man in three forms—the pneumonic, which has a death rate of almost 100 per cent.; the septicemic, which is nearly as fatal, and the bubonic in which even with the most modern methods of treatment the mortality is about 50 per cent. It is a disease of commerce, spreading around the globe in the body of the ship-borne rat. It is estimated that every case of human plague costs the municipality in which it occurs at least \$7500. This does not take into account the enormous loss due to disastrous quarantines and the commercial paralysis which the fear of the disease so frequently produces.

The disease is now treated by a serum discovered through the genius of Yersin. This is used in much the same way as is diphtheria antitoxin.

Plague is transferred from the sick rodent to the well man by fleas. The sick rat has enormous numbers of plague bacilli in its blood. The blood is taken by the flea, which, leaving the sick rat, seeks refuge and sustenance on the body of a human being, to whom it transfers the infection.

Since plague is a disease of rodents, and since it is carried from sick rodents to well men by rodent fleas, safety from the disease lies in the exclusion of rodents, not only exclusion from the habitation of man, but also from the ports and cities of the world. Those who dwell in rat-proof surroundings take no plague. Not only should man dwell in rat-proof surroundings, but he should also live in rat-free surroundings. The day is past when the rodent served a useful purpose as the unpaid city scavenger. Rats will not come where there is no food for them. Municipal cleanliness may be regarded as a partial insurance against plague. The prayer that no plague come nigh our dwelling is best answered, however, by rat-proofing the habitations of man. Modern sanitary science has evolved a simple and efficient weapon against the pestilence which walketh in darkness and striketh at noonday, and the United States Public Health Service has put this knowledge into practical operation, and thus speedily eradicated plague wherever it has appeared in the United States.



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The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwarv a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired luster to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

Half a Century's Progress.

OCTOBER, 1916, points an epoch in the history of Parke, Davis & Co. The house was founded in 1866-just fifty years ago this monthlargely upon the optimism of three or four determined men, backed by a capital that would seem insignificant today. There was nothing in its unpretentious origin to foretell the success of after-years. And by success we mean not merely material prosperity, but also that broader and more enduring success that is based upon good-will and confidence.

Manufacturing pharmacy was then a crude, imperfect art. Bacteriology, pharmacology and biological pharmacy were as yet unborn. There were no curative sera or vaccines in those days. Prophylaxis was in its infancy. Standardization was unknown.

Fifty years have wrought marvelous changes in means and methods for the treatment of human ills. The materia medica has been amplified beyond the dreams of the earlier investigators. Knowledge of pathology has immensely broadened. The empiricism of the past has given way to rational therapeutics, and medicine is taking its rightful place among the sciences.

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To those who have long employed Pasadyne (Daniel) and are well acquainted with its distinct value in medicine it will not be fresh information to be assured that PASADYNE (Daniel) has as wide a therapeutic range as any agent of similar character, and with the added advantage of freedom from untoward effects.

In writing of Passiflora Incarnata—and, of course, it is scarcely necessary to mention that Pasadyne is merely the distinctive name for Daniel's Concentrated Tincture of Passiflora Incarnata—Potter says that "it has been admin-

istered with satisfactory results in neuralgia, chorea, spasmodic asthma, pertussis, hysteria, dysmenorrhea, insomnia, infantile and puerperal convulsions and the opium habit."

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The Tuberculosis Invalid.

THE pricking of the Friedmann bubble but served to still further confirm and accentuate the vital importance of the well-defined methods of treatment for tuberculosis that have given such encouraging results, i. e., fresh air, sunshine, rest, nutritive reinforcement and judicious medication. A proper combination of these four remedial factors is practically certain to place the incipient tuberculosis invalid upon the road to recovery, if the patient is intelligently handled and the treatment persisted in. While it is, of course, acknowledged that the first three non-medicinal agents referred to constitute the vital elements of the upbuilding regime, considerable aid is afforded by judicious melication. Hematinic reinforcement should certainly not be neglected, in view of the secondary anemia which is almost always apparent. Among the agents which have produced the best results in the revitalization of the blood, Pepto-Mangan (Gude) is the most generally eligible and acceptable. As it is thoroughly palatable, neutral in reaction, free from irritant properties and devoid of constipating effect, the digestion of the patient is not disturbed, while the appetite and general vital tone improve more rapidly and satisfactorily than when hygienic and nutritive measures are depended upon exclusively.

Straining at Stool.

It is pretty safe to say that any bodily condition that is aggravated by pressure or congestion is aggravated by that daily straining at stool which is the rule rather than the exception with such a large percentage of humans.

When one stops to realize that in the act of defecation every abdominal muscle is brought into play, and that many individuals customarily strain at stool with a force great enough to cause their faces to flush and their temporal veins to bulge out, then it is that one appreciates the tremendous force brought to bear locally upon the abdominal and perineal muscles and generally upon the whole body.

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Since defecation is a necessary function and cannot be suspended, it would seem that the best remedy for the difficulty of defecation would be to supply the lubrication that is often lacking and thus bringing about the necessity of straining at stool.

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There is one outstanding reason why "Interol" does away with, or at the very least minimizes, straining at stool, namely, "Interol" has a peculiar lubricating body, by which it mixes with the feces before they are feces, spreads over and mixes with them and lubricates them in their passage through the colon, until they reach the rectum, from which they

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Typhoid Fever: A Rational Treatment.

"In the treatment of typhoid fever, what is necessary?" asks a medical writer, who proceeds to answer his own question in this wise:

- "I. Endeavor to cut short the course of the attack and to lessen the danger period during which there is risk of complications.
- "2. Meet any complication which may arise and be ready with the indicated treatment in the event of such complications.
- "3. Guard against the danger of relapse by prolonging treatment beyond the period of symptoms and by general supervision during convalescence.
- "4. Demand rest in bed and a milk diet, with unsweetened lemonade or barley water.
- "5. Combat the effects of the toxemia from the infecting organisms by administering Typhoid Phylacogen."

Typhoid fever, as is well known, is an acute infectious disease, due to the entrance into the body of the bacillus of Eberth, commonly

designated the bacillus typhosus. And while this bacillus is recognized as the specific cause, it is conceded that complicating organisms, as the bacillus coli communis, the bacillus dysenteria, the paracolon bacillus, the pneumococcus, the staphylococci and the streptococci, may play an appreciable part in the disease process.

In view of these facts, treatment with Typhoid Phylacogen would seem a rational procedure, this phylacogen consisting of a culture filtrate of the bacillus typhosus of Eberth and mixed infection phylacogen. In support of the treatment it is said that a marked effect in all favorable cases is the comparatively prompt subsidence of the fever and the early establishment of convalescence. It is also pointed out that, while shortening the disease period, this therapy also simplifies treatment. It consists ordinarily of one injection a day and does away with ice, the bathtub and supplementary attendants. For the technique of administration, suggestions as to dosage, etc., physicians are referred to the pamphlet, "Typhoid Phylacogen," issued by Parke, Davis' & Co., a comprehensive booklet containing information that cannot fail to be of interest and value to any practitioner.

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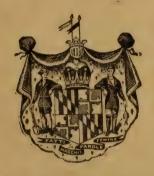
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Obstipation Following Operation

is psychologically depressing to the patient and causes him to "wonder if the operation was successful." Thus, dissatisfaction with the surgeon's result often arises both with the patient and with the family doctor. The patient becomes morbid, and even a hypochondriac, and "wonders if he will ever get well."

This is in addition to the pathology of the condition, namely, the autotoxemia arising from the obstipation, but INTEROL, as part of the post-operative treatment, coaxes the anesthetic-deranged peristalsis back to normal, at the same time softening, and then *lubricating* the feces around bends and angulations in the gut, making possible easy bowel movement, without straining at stool.

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of hygiene and public health to be established at the Johns Hopkins University. While abroad Dr. Welch spent some time with Sir William Osler at Oxford, and also visited Dr. Joseph A. Blake at his hospital at Risorangis and Dr. Alexis Carrel, New York, at Compeigne.

The Surgeon-General of the Army announces that preliminary examination for appointment of first lieutenants in the Army Medical Corps will be held early in January, 1917, at points to be hereafter designated.

Full information concerning this examination can be procured upon application to the "Surgeon-General, United States Army, Washington, D. C." The essential requirements to secure an invitation are that the applicant shall be a citizen of the United States, between 22 and 32 years of age at time of receiving commission in Medical Corps, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, of good moral character and habits, and shall have had at least one year's hospital training as an interne after graduation. Applicants who are serving this postgraduate interneship and can complete same before October 1, 1917, can take the January examination. The examination will be held simultaneously throughout the country at points where boards can be convened. Due consideration will be given to localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible.

In order to perfect all necessary arrangements for the examination, applications should be forwarded without delay to the Surgeon-General of the Army.

There are at present 228 vacancies in the Medical Corps of the Army.

DEATHS.

ARISTIDE W. GIAMPIETRO, M.D., Tampa, Fla.; University of Maryland, Baltimore, 1907; aged 34; a member of the American Chemical Society; died in the Gordon Keller Hospital, Tampa, Fla., August 30, from pneumonia.

CHARLES H. WHITING (license, of Maryland); a practitioner for 49 years; a veteran of the Civil War; died in the University Hospital, Baltimore, September 11, from cerebral hemorrhage.

ELIJAH MILLER REED, M.D., Baltimore; University of Maryland, Baltimore, 1864; aged 72; formerly a member of the Medical and Chirurgical Faculty of Maryland and professor of nervous diseases and medical jurisprudence in

Maryland Medical College, Baltimore; at one time officer of the medical corps of the army; died at his home, September 12, from cerebral hemorrhage.

After making what his physicians think a most remarkable fight for life, Dr. Louis L. Lloyd, 639 West Franklin street, brother of Patrolman Charles J. Lloyd of the Northwestern Police District, and well-known physician, died shortly before 8 o'clock at the Maryland General Hospital.

Suffering from an obstruction of the intestines, Dr. Lloyd underwent two operations at the hospital. Dr. Lloyd was for years one of the most prominent athletes in the State. He was a member of the Baltimore Medical College football team, during a period in which it played against some of the strongest teams in the East and never tasted defeat. He was also a member of the old Baltimore Athletic Club crew which won race after race without being beaten, and on one occasion Dr. Lloyd rowed an entire race with a tendon in one of his legs broken.

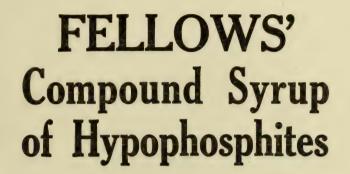
Dr. Frank C. Ferguson, a physician of South Baltimore, died suddenly at his home, 1230 South Charles street, from pleurisy. He became ill Saturday, but his condition was not considered serious.

Dr. Ferguson was born 37 years ago in Greenville, S. C., and came to Baltimore to study medicine. He was graduated from the University of Maryland in 1901 and has been practicing ever since. He is survived by his widow, Mrs. Edith Ferguson; his mother, Mrs. A. C. Ferguson of Greenville, and three sisters and two brothers, also of Greenville. The body will be taken to Greenville.

Dr. R. W. Crawford, son of the late R. W. Crawford and Mary E. Hendrick Crawford, died September 21 at Strasburg, Va. He was born near Strasburg, June 28, 1880. As a boy he attended the Misses Farrer's School, and then went to Pantope Academy near Charlottesville for two years. He received his bachelor of arts at Washington and Lee University and his diploma in medicine at the University of Maryland in 1906.

The relief department of the Atlantic Coast Line Railroad appointed him superintendent of its hospital in Rocky Mount, N. C., which position he held until promoted to be chief surgeon of the road, which was his title at his death, his offices being in Wilmington, N. C.

One sister, Miss Anne S. Crawford, survives him.



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THE FACTOR OF POVERTY IN SANITATION.

The factor of poverty in sanitary problems was discussed in Washington November 26 by Surgeon-General William C. Gorgas, whose success in cleaning up Havana and the Panama Canal Zone have brought him recognition as America's leading sanitarian. His audience was the Clinical Society of Surgeons, assembled in their twenty-fourth annual meeting. Dr. Gorgas said, in part:

"Such sanitary work as is necessary in the tropics is inexpensive, but measures directed against special diseases are not the

greatest good that can be accomplished by sanitation.

"Before these great results that we can all now see are possible for the sanitarian, we shall have to alleviate more or less the poverty at present existing in all civilized communities. Poverty is the greatest of all breeders of disease and the stone wall against

which every sanitarian must finally impinge.

"During the last 10 years of my sanitary work I have thought much on this subject. Of what practical measure could the modern sanitarian avail himself to alleviate the poverty of that class of our population which most needs sanitation? It is evident that this poverty is principally due to low wages; that low wages in modern communities are principally due to the fact that there are many more men competing for work than there are jobs to divide among these men. To alleviate this poverty two methods are possible, either a measure directed toward decreasing the number of men competing for jobs, or, on the other hand, measures directed toward increasing the number of jobs.

"The modern sanitarian can very easily decrease the number of men competing for jobs. If by next summer he should introduce infected stegomyia mosquitoes at a dozen different places in the Southern United States he could practically guarantee that when winter came we would have several million less persons competing for jobs in the United States than we have at present. This has been the method that man has been subject to for the last 6000 or 7000 years, but it does not appeal to me, nor, I believe, to yourselves. This method is at present being tried on a huge scale by means of the great war in Europe. I do not think that I risk much in predicting that when this war is over and we shall have eliminated 3,000,000 or 4,000,000 of the most vigorous workers in Europe, wages will rise and for a long time no man will be unable anywhere in Europe to get a job at pretty fair wages.

"But I am sure that every sanitarian would much rather adopt measures looking toward the increase of jobs rather than, as we have done in the past, submit to measures that decrease the num-

ber of competitors for jobs.

"I recently heard one of the members of the Cabinet state that in the United States 55 per cent. of the arable land, for one reason or another, is being held out of use. Now suppose in the United States we could put into effect some measure that would force this 55 per cent. of our arable land into use. The effect at once would be to double the number of jobs. If the jobs were doubled in number wages would be doubly increased. The only way I can think of forcing this unused land into use is a tax on land values.

"I therefore urge for your consideration, as the most important sanitary measure that can be at present devised, a tax on land

values.

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The principal carbohydrate in Mellin's Food is maltose, which seems to be particularly well adapted in the feeding of poorly nourished infants. Marked benefit may be expected by beginning with the above formula and gradually increasing the Mellin's Food until a gain in weight is observed. Relatively large amounts of Mellin's Food may be given, as maltose is immediately available nutrition. The limit of assimilation for maltose is much higher than other sugars, and the reason for increasing this energy-giving carbohydrate is the minimum amount of fat in the diet made necessary from the well-known inability of marasmic infants to digest enough fat to satisfy their nutritive needs.

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Napoleon once made the statement that: "his armies marched on their bellies."

In this terse epigrammatic sentence the Little Corporal expresses perfectly the fact that "man is only as strong as his stomach," and that when digestion is weakened, the efficiency of the entire organism is impaired.

The one remedial agent that will turn the dyspeptic, whether soldier or ordinary citizen, into a competent fighting man, is PEPTENZYME, a powerful digestant, capable of performing every function of digestion.

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CLEAN HANDS.

DISEASE germs lead a hand-to-mouth existence. If the human race would learn to keep the unwashed hand away from the mouth, many human diseases would be greatly diminished. We handle infectious matter more or less constantly, and we continually carry the hands to the mouth. If the hand has recently been in contact with infectious matter, the germs of disease may in this way be introduced into the body. Many persons wet their fingers with saliva before counting money, turning the pages of a book or performing similar acts. In this case the process is reversed, the infection being carried to the object handled, there to await carriage to the mouth of some other careless person. In view of these facts the United States Public Health Service has formulated the following simple rules of personal hygiene, and recommends their adoption by every person in the United States: Wash the hands immediately before eating, before handling, preparing or serving food, after using the toilet, after attending the sick and after handling anything dirty.

FRAUDULENT INFANTILE PARALYSIS "CURES."

Officials of the Department of Agriculture charged with the enforcement of the Food and Drugs Act expect that the outbreak of infantile paralysis will tempt unscrupulous persons to offer for sale so-called "cures" or remedies for this dread malady. They, therefore, have issued special instructions to the food and drug inspectors to be particularly alert for interstate shipments or importations of medicines, the makers of which allege that they will cure or alleviate this disease, for which, at the present time, no medicinal cure is known. The officials also warn the public that any preparation put on the market and offered for sale as being effective for the treatment of infantile paralysis should be looked upon with extreme suspicion. Inspectors, accordingly, have been instructed to regard as suspicious, and to collect samples of, all medicines in interstate commerce for which such claims are made. Makers of such fraudulent remedies will be vigorously prosecuted whenever the evidence warrants action under the Sherley Amendment to the Food and Drugs Act. So-called remedies for infantile paralysis which are offered for import into the country will be denied entry.

The food and drugs officials are particularly watchful in this instance because it has been noted in the past that whenever a serious epidemic exists unscrupulous dealers prey upon the fear or ignorance of the public by floating the market with worthless, hastily prepared concoctions for which they assert curative properties which have no foundation whatever in fact. In the present instance inspectors already have discovered shipments of a few such mixtures.

The department will do everything it can under federal law to protect that portion of the public which is extremely credulous in times of panic and which will grasp at anything which promises protection or relief. The sale of such products at this time, the officials point out, is particularly threatening to the public health, because many persons, relying on the false statements of imposters, neglect to secure competent medical advice. As a result, not only is the safety of the patient endangered, but in the absence



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of proper sanitary precautions, the likelihood of contagion is

greatly increased.

It must be understood, however, that the Federal Food and Drugs Act applies only to products which are shipped in interstate commerce, that is, from one State to another, or which are offered for import or export, or which are manufactured or sold within a territory or the District of Columbia. Products which are made and consumed wholly within a single State are subject only to such State laws as may apply and are under the control only of State health officials. The federal law does not apply, for instance, to patent medicines made within the State of New York and sold in New York City. Persons buying or using a "remedy" made in their own State, therefore, must rely on the protection accorded them by their local health authorities.

RECREATION THE KEY TO HEALTH.

What profiteth a man that he gain the whole world, yet lose his health?

Naturalists say that long ago the prehistoric waters were infested with a species of enormous shark which finally became extinct by reason of the workings of its voracious appetite. Thus nature eliminates the overfed.

The desire for ease of life and plentiful diet is universal, and is the great stimulus of man and animals alike. When man becomes greedy and takes more ease and food and drink than is

his share, nature discards him.

In the race for power and place, for ease of circumstance and relief from the stimulus of hunger the modern man is apt to forget that unless he is careful of his body, he will soon be made to suffer for the infraction of nature's inexorable physical law. With the loss in body tone comes an equal loss in mental acuity, and the brain, which for a time was able to operate despite the complaints of an overfed, underexercised, self-poisoned body,

stops working.

Statisticians have discovered that the mortality rate of persons in the United States over 45 years of age is increasing. The strenuous life of today is not alone responsible for this. Lack of health-giving exercise, superfluity of diet, lack of restoring sleep, overstimulation, the high pressure of the race for power, wealth and position plus physical neglect—these bring early decay. The goal is reached—wealth is amassed—honor, position and power are just being grasped when the apple of accomplishment turns to the ashes of dissolution. The brilliant mind becomes clouded, the steady hand is no longer accurate, the eye which once gazed fearlessly on the whole world is dimmed, and it is not long before the final breakup occurs. All of this was entirely preventable.

Other things being equal, it is the man who leads the well-balanced life who lasts the longest, whose work to the end is uniformly the best; he who neither overworks nor overplays, neither overeats, overdrinks nor oversleeps; he who maintains a standard of simple healthy diet in moderation, who offsets mental work with physical recreation, who is as honest with his own body as he is with his own business. When success comes to such an one, his physical and mental condition is such that he can



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The regulations of the United States Public Health Service state: "It is the duty of officers to maintain their physical as well as their professional fitness. To this end they shall be allowed time for recreation and study whenever their official duties will permit." If the Government regards it as essential that its sanitary experts shall be safeguarded in this way, is it not equally important to every citizen that he similarly maintain a high standard of physical integrity?

CAROTID TUMOR.

A. M. SHIPLEY and F. S. LYNN of Baltimore (Journal A. M. A., May 20, 1916), report two cases of ligation of the common carotid, on account of their peculiarities and the rarity of the conditions existing. One was the removal of a carotid tumor in a young woman, aged 16, which was penetrated by the artery and internal jugular so that both were ligated above and below the mass removed. The patient made a good recovery and has had no recurrence after a lapse of five years. The authors review the literature of such operations and, though complete removal is hazardous, the growth of the tumor was entirely downward from the bifurcation from the common carotid and its removal was necessitated. The carotid body or gland was first described by Haller in 1743, and is related to the chromaffin system, and experiments show that its function is not important in itself. The second case reported was in a middle-aged woman who had suffered from increasing dyspnea, shortness of breath, difficulty in swallowing and an irritating cough. There was no external tumor, but the pharynx was well obstructed by a smooth pulsating mass which was diagnosed as an aneurism. The carotid was ligated and an un-eventful recovery followed. The authors review the history of the operation for this cause and quote the directions given by Matas for the technic.

UNCLE SAM'S medical men in the Philippines have a curious problem to solve and are working it out with the usual American ingenuity with goods "made in the U.S. A." The Bureau of Health proposes to send vaccine virus to health stations in the far interior of various islands. The virus must be kept cold in a tropical climate. Ice is easy to secure anywhere on the coast. Travel into the interior is so rough that only coolies can cover the paths and carry the tubes of virus, but they cannot transport ice enough to properly keep it.

So the Bureau of Health has been planning to pack the tubes in ice in vacuum jars after the fashion of an ice-cream freezer.

The Icy-Hot Bottle Co. of Cincinnati has had inquiries from Manila, and suggests the use of wide-mouthed jars. In these ice can surround the tubes of virus, and, although the ice may melt before the journey's end, the water will keep cold a long time after. The Bureau of Health made a test in Manila and found that after 127 hours (over five days) the ice in the vacuum container had melted, but had risen only to 50 degrees Fahrenheit. The Government's plan is thus thoroughly practical, and doubtless vacuum bottles will have another chapter added to their usefulness.



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AMERICA'S FIRST DUTY.

"THE estimated economic loss which our nation suffers each year from typhoid fever and malaria alone aggregates \$928,-234,880, leaving out of entire account the sorrow, the unhappiness, the misery and the inefficiency which follow in their train." Senator Joseph E. Ransdell of Louisiana today addressed the Senate on the subject of "Rural Health-America's First Duty." "The greatest asset which our country can have," said Senator Ransdell, "is the healthy American citizen, and valuable as it may be to increase the health of livestock and vegetation, it is of far greater importance that we throw every possible safeguard about the health of the man who is responsible for that livestock and vegetation. Over \$900,000,000 lost every year! A sum which is sufficient to put our country into a state of preparedness equal to that of any nation in the world, enough money to give us the largest navy afloat and the most efficient army which the world has ever seen, is annually offered up as a sacrifice to two diseases which are entirely preventable. Enough money to pay the annual expenses of every college student in the United States is absolutely thrown away every year." Senator Ransdell estimates the grand total loss from typhoid fever at \$271,932,880 per annum, and the loss from malaria at \$694,904,750 per year; the total per capita loss from these two diseases being \$9.46. By comparative estimate it was shown that the United States Government appropriated \$5,016,175 for the investigation and prevention of the diseases of animal and plant life, and only \$1,917,-566 for the investigation and prevention of the diseases of man.

GIVE THE BABY A CHANCE.

BAD air, bad milk, overcrowding, poverty, dirt, ignorance, heat—these combine in summer to kill the city baby. It seems as though the brunt of the cities' sanitary sins were focused on the baby. The baby didn't ask to come, to live in a hot, dark, air-tight tenement, to be fed on dirty, half-spoiled milk, to be pestered with flies and mosquitoes. He is not responsible for any of these conditions, and it is his right that he have fresh air, clean surroundings and decent food. The United States Public Health Service issues free of charge to all applicants a bulletin on "The Summer Care of Infants." It should be in the hands of every mother.

DO YOU KNOW THAT

ONE million two hundred thousand Americans die each year, it is estimated?

Heart disease, pneumonia and tuberculosis cause more than 30 per cent. of deaths?

Sickness lowers earning capacity?

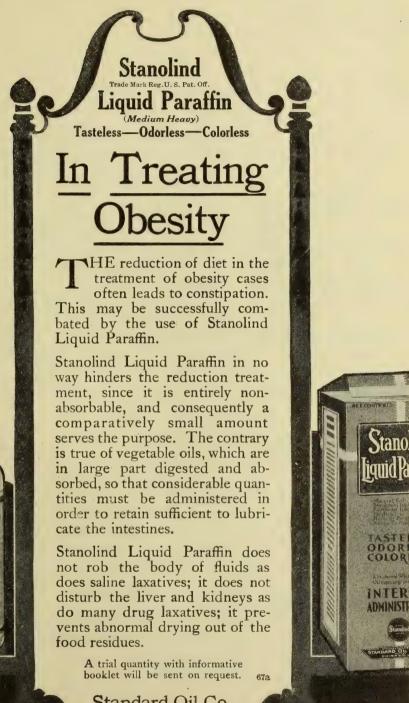
The United States Public Health Service is the nation's first line of defense against disease?

Disease is the nation's greatest burden?

Sunlight and sanitation, not silks and satins, make better babies?

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A female fly lays an average of 120 eggs at a time?



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'HIS Directory is maintained mainly for the benefit of local firms seeking the patronage of physicians and their families. Only well established and reliable concerns will be represented, and doubtless the space at our disposal will be constantly in demand. In responding to these exploitations, the reader will find it mutually advantageous to mention the MARYLAND MEDI-CAL JOURNAL.

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HARDLY another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol.

The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proved injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired luster to the intended deceit.

This fraud, which was exposed at an action tried before the Supreme Court of Victoria at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribed. No "just as good" allowed.

A Widely Useful Soap.

THERE are a number of so-called antiseptic soaps. Probably the most generally serviceable of these is Germicidal Soap, formula by Dr. Charles T. McClintock, which has been not inaptly designated "the soap of a hundred uses," a soap made from pure vegetable oils and containing the powerful antiseptic mercuric iodide. As indicative of the germicidal power of this soap it may be said that a solution of it containing one part of mercuric iodide in five thousand parts of diluent will destroy pus organisms in less than five minutes. It is undoubtedly the most available antiseptic for the general practitioner. There are no solutions to carry. The soap is always ready for use. It does not stain linen or tarnish polished instruments.

Some of the uses to which Germicidal Soap is adapted are these: To prepare antiseptic solutions; to sterilize the hands, instruments and site of operation; to cleanse wounds, ulcers, etc.; to lubricate sounds, specula and catheters; to destroy infecting organisms in skin diseases; to disinfect surface lesions; to control itching in skin affections; to make solutions for the vaginal douche; to destroy offensive odors; to



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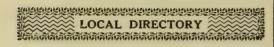
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cleanse the hair and scalp and remove and prevent dandruff; to disinfect vessels, utensils, etc.; to wash and sterilize bed linen used in the sickroom. It is apparent from the foregoing that the soap is at once an antiseptic, disinfectant, deodorant, sterilizer, lubricant and cleanser.

As most physicians probably know, Germicidal Soap McClintock, is manufactured by Parke, Davis & Co. It is supplied in two strengths, containing, respectively, one per cent. and two per cent. of mercuric iodine. It is well to specify "P., D. & Co." when ordering from the druggist.

Where Its Main Virtue Lies.

IF its main virtue lay in its palatability the popularity of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) would have been but transitory, for careful clinicians demand more than superficial qualities in the therapeutic agents they use; hence, one is justified in assuming that the reason why Cord. Ext. Ol. Morrhuæ Comp. (Hagee) has held favor with the profession all these years is to be found in the fact that it does everything expected of codliver oil. And, in fact, it does too, for it contains all of the essential qualities of the oil subjected to a process that emphasizes their usefulness when administered in indicated conditions. If palatability is a factor with you in choosing remedial agents, then write Cord. Ext. Ol. Morrhuæ Comp. (Hagee) when ordering a product of this character.

Hard Dry Feces.

"INTEROL" is suggested as a means of overcoming this difficulty—and a hard dry fecal mass is indeed a difficulty—because "Interol" has several points in its favor.

In the first place, it becomes part of the intestinal contents as they emerge from the cecum into the colon. It is thus mixed with them and covering them. Under its influence feces cannot become hard and dry. The colon may absorb all the *water* it wants, but "Interol" remains with the mass all through its colonic and rectal journey, finally lubricating it past the sphincter ani during the defecation act.

By so doing, straining at stool, which is an invariable accompaniment of hard dry feces, no longer is a necessity, and herein lies the value of "Interol," not only as a fecal softener and lubricant, but as a prophylactic measure in the prevention of the many physical sequelæ of straining at stool, including hernia, hemorrhoids and prolapse (rectal and uterine).

Four-page circular on "Hard Dry Feces" sent on request. Also four-page circular on "Straining at Stool" or Interol-lubrication booklet. Van Horn & Sawtell, 15-17 East 40th street, New York City.

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So many sedative agents have disadvantages of one kind or another that the physician oftentimes is in a quandary as to just what drug or combination to employ. This is particularly so if the patient be a woman or child. In Pasadyne (Daniel's Concentrated Tincture of Passiflora Incarnata) the clinician will find a soporific product which meets every requirement. It not only produces prompt sedation, but furthermore is free from disagreeable after-effects. The sleep secured through its administration is tranquil and refreshing. It is especially adapted for use in women and children, for it is free from the dangerous possibilities of other agents so widely employed for the same purpose. Whenever you wish to produce sedation use Pasadyne (Daniel). It has no concern with the Harrison Act. A sample bottle may be secured by addressing the laboratory of John B, Daniel, Inc., Atlanta, Ga.

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of the individual cells. Thus, if the cells be stimulated to better assimilation and elimination, diseased states due to interference with these normal functions of the cellular constituents of the vital organs must of necessity undergo a change, for the underlying and continuing cause is being altered. The drugs usually employed for this purpose are those termed the alteratives, an efficient representative of which class is Iodia (Battle).

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and other distinguished physicians were exhibited. Dr. F. H. Albee of New York was present to explain the films.

Dr. H. C. Hype announces the removal of his office to 1100 East North avenue.

DR AND MRS. JOSEPH ROACH have returned to their residence on Park avenue from Blue Ridge Summit.

DR. AND MRS. ALEXANDER L. HODGDON have returned from their estate in St. Mary's county, and are stopping at the Albion Hotel.

The University of Maryland has recently obtained the State appropriation of \$15,000 for medical education for 1915 and a similar amount for 1916, which, owing to the financial embarrassment of the State treasury, was not paid when due. The whole amount of \$30,000 has now been paid.

ISAAC F. NICHOLSON, Baltimore, celebrated his eightieth birthday by giving the Johns Hopkins University \$15,000 for the establishment of the Isaac Forester Nicholson Fund, to establish scholarships for needy students from Baltimore or the State of Maryland, and to be used for any other purpose the trustees may desire.

Dr. James A. Nydegger, United States Public Health Service, has resigned the chair of tropical medical at the University of Maryland, as his public health service duties claim his entire time.

Dr. Arminius C. Pole, after many years' service as professor of anatomy in the Baltimore Medical College and professor of descriptive anatomy in the University of Maryland since the merger of the two schools, has resigned.

DR. WILLIAM L. SMITH, Riderwood, who has been ill for the last six months, underwent a successful operation at the Union Protestant Infirmary in October.

Dr. John H. Von Dreele, Health Warden of the Thirteenth Ward of Baltimore, has resigned.

DR. GROVER A. C. STEM, Baltimore, who is on duty with the German Army on the Eastern front, has been decorated with the Iron Cross by Emperor William.

Drs. Charles H. Peck, Thomas S. Cullen, Lieut.-Col. Henry Page, Medical Corps, U. S. A., and Dr. Howard A. Kelly made addresses at the meeting of the Baltimore City Medical Society on November 17.

DEATHS.

EMMET ALVIN WELSH, M.D., Shreveport, La., University of Maryland, 1887, aged 52; a Fellow of the American Medical Association; pathologist and assistant superintendent of the State Charity Hospital, Shreveport, died October 6 after an operation for acute appendicitis.

George Bayliss Stillman, M.D., East Cleveland, O., College of Physicians and Surgeons, Baltimore, 1880, aged 64; formerly a member of the Ohio State Medical Association, died in Buffalo October 12.

Frank Cline Ferguson, M.D., Baltimore, Md., University of Maryland, Baltimore, 1901, aged 37, died at his home October 11 from pleurisy.

Percy Guy Davis, M.D., Deerfield, Mass., Baltimore Medical College, 1896, aged 49; a member of the Massachusetts Medical Society, and for several years president of the Deerfield Village Improvement Society, died at his office October 20 from heart disease.

CHARLES P. BIGELOW, M.D., Grand Rapids, Mich., College of Physicians and Surgeons, Baltimore, 1882, aged 92; a veteran of the Civil War; for many years a druggist, died in the Blodgett Memorial Hospital, Grand Rapids, October 14.

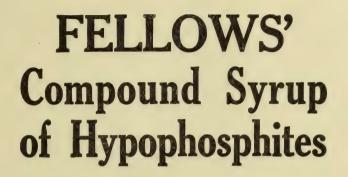
HENRY H. WHITAKER, M.D., Hilliardston, N. C., University of Maryland, Baltimore, 1883, aged 55; formerly a member of the Medical Society of the State of North Carolina, died at his home October 12 from cerebral hemorrhage.

Dr. WILLIAM PRESTON MILLER, 46 years old, a son of the late Dr. Victor D. Miller, Sr., of Mason and Dixon, died at Hagerstown October 6, 1916, of pneumonia, after a long illness.

He was educated at Mercersburg Academy, the State Normal School at Kutztown, Pa., and graduated from the Baltimore Medical College, where he was a professor of pathology, and the University of Pennsylvania, finishing his course at the latter institution in 1895.

Returning to Baltimore, Dr. Miller took a postgraduate course at Johns Hopkins University. He was associated with Dr. Charles G. Hill, Baltimore, in the practice of medicine, and for two years served as resident physician at the Maryland General Hospital.

ROBERT G. VAN VALZAH, M.D., Springfield, Ore.; College of Physicians and Surgeons, Baltimore, 1863; aged 52; also a druggist; died at his home, September 5, from nephritis.



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Book Reviews.

THE MEDICAL CLINICS OF CHICAGO. November, 1915. Volume 1, Number 3. Published Bimonthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Company. Paper, \$8 per year.

The more we see of the Medical Clinics the more we like them. Just to give a little insight into the material which they contain, we repeat for your benefit partially some of the remarks of Dr. C. S. Williamson on the treatment of typhoid fever: "Twenty years ago I think it is safe to say that the majority of physicians kept their patients on a strictly milk diet. I was taught to think anything else than milk was rank poison to the patient. He was given milk and nothing else, and not much of that. The result of this sort of treatment was that the patient simply loathed to see the nurse coming down the hall with a glass of milk. He became sick and tired of it. As a result the appetite became impaired and he took just as little as he could, and when he got through he was in wretched nutrition. It became almost impossible to feed them, and patients developed all sorts of complications. We had great difficulty in keeping their mouths clean, bed-sores were common, and we had many cases of furunculosis, and they often got up emaciated in a marked degree. I saw a great many more cases of typhoid as an intern in Cincinnati than I do now, and I made up my mind that when I got through my apprenticeship I would do something besides feed patients on milk alone. Little by little physicians became more liberal in their diet, but the majority of men up to five or six years ago kept their patients principally on milk, giving them, perhaps, others fluids. This was a little better, but during the last four or five years the fashion has swung around the other way. Men are recommending food in quantities—a good deal more than the ordinary diet contains. A man will recommend as much as 4000 or 4500, or even 5000, calories of food a day, which is as much as a man doing the hardest kind of work can consume. I have always opposed the simple milk diet, but I am iust as much against the overfeeding. I see no reason why a patient that is running a fever should be fed more than he would if he were up and about. I have never put a patient on a pure fluid diet, but I don't believe in overfeeding either. In the first place, I think a diet consisting of about 2800 or 3000 calories is just about right. That is just about what most of us consume in a day. Is it necessary to keep the typhoid patients on a liquid diet? Emphatically no. The idea was that by keeping the patient on a strictly milk diet the fecal residue would be less, but that is not true. A man on a strictly milk diet will have hard fecal masses just as often as those on a more liberal diet.

"In the first place, I allow them milk if they like it; if they are fond of milk, I often give them half cream and half milk. Our ordinary city milk is not so rich that this is unpalatable. Along with this I give them a lot of milk foods, and I am particularly partial to the ice-cream preparations. One can prepare many different dishes, such as the parfait, the ordinary mousse and the fruit ices. I see no reason why ice cream should not be taken in any form unless it contains large quantities of fruit. I think ice cream should be used much more freely than it is; it is palatable and nearly every patient will take it. Then we have the egg foods.

INFANT FEEDING

In extreme emaciation, which is a characteristic symptom of conditions commonly known as

Malnutrition-Marasmus-Atrophy

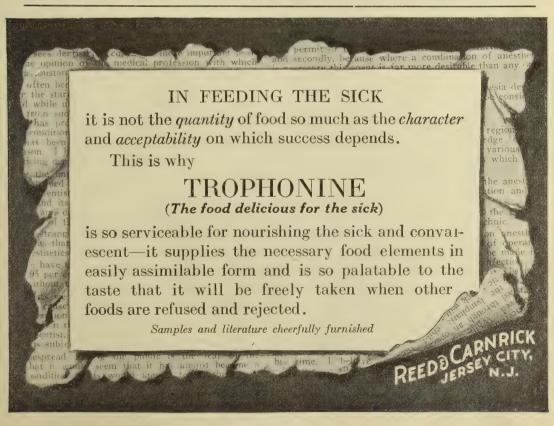
it is difficult to give fat in sufficient amounts to satisfy the nutritive needs; therefore, it is necessary to meet this emergency by substituting some other energy-giving food element. Carbohydrates in the form of maltose and dextrins in the proportion that is found in

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are especially adapted to the requirements, for such carbohydrates are readily assimilated and at once furnish heat and energy so greatly needed by these poorly nourished infants.

The method of preparing the diet and suggestions for meeting individual conditions sent to physicians upon request.

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They can be given raw, beaten up with milk, soft boiled, poached or coddled. Fried or hard-boiled eggs are a little too indigestible for an ordinary patient, but a well-made omelet is very good, and

I allow a patient to have one once a day if he likes it.

"And then we have the cerals. Any soft cereal can be given. I allow my patient cream of wheat, oatmeal, or anything so long as it is pretty thin. I use milk sugar instead of cane sugar. It is not so sweet as the cane sugar, and, consequently, a patient will take more, and in this way get a good deal of nourishment. In the same way, in a milk punch or eggnogg, you can put in a good deal of milk sugar without making it too sweet. I do not know who

first suggested this, but it is useful.

"Then I want to recommend to you the use of soups, but in recommending soups I don't mean what are commonly called slops. Don't give the patients mutton broth or beef tea. The amount of nutrition contained in these is a negligible factor. The best soups are the cream soups, and they can be prepared in a very delicious way. One can even use as heavy a vegetable soup as the cream of pea. These should all be strained through a coarse kitchen towel. I think the cream soups are much too little used. A cream soup, especially if it be given in a cup with whipped cream on top, will make a very delicious food which most patients will take greedily. I don't object at all to potato if given in the form of a purée. A small amount of well-mashed potato is allowable. Various things can be given in the form of purées.

"Jelly preparations can be given, such as wine jelly or the ordinary tapioca mixtures flavored with different fruits. My experience is that a good cook and housewife is almost as essential to the treatment of a case of typhoid fever as the physician. The thing to do in treating a patient with typhoid fever is to see that he comes through in some sort of decent nutrition. It is not much of a compliment to a physician to have a patient come through a fever if he has lost 25 or 30 pounds and it takes him a year to get

back into good nutrition.

"The dietetic treatment is all important. I am sure that I have seen patients literally starved to death—their nutrition so poor that they fell victims to some of the numerous complications. The diet I have outlined you gives a very liberal menu, and we can add to it several other things. When asgaragus is in season, I allow them just the tips of fresh, green asparagus or the tips of cauliflower; I see no reason why a patient should not have a spoonful of cauliflower tips if he gets none of the fibrous part.

"Will you give them meat? I have never quite seen the neces-

sity for giving the typhoid fever patient meat.

"The intervals of feeding should be short. I generally prefer every three, or even every two, hours, beginning when he wakes up in the morning and continuing until he goes to sleep at night. The only exception I would make to this would be if the patient was so emaciated that I thought nourishment more important than sleep. But if the patient wakes up during the night, I always try to have the nurse get him to take some food, perhaps a little eggnogg, which is quickly made and may help the patient to get off to sleep again."

It is just such articles as these which constitute each volume of the Medical Clinics. Certainly one can go a long way before he obtains such a clear statement of fact concerning the latest and most approved method of treating typhoid fever from a dietetic **PRESCRIPTIONS**

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standpoint. After it is read nothing can be added to it or taken from it. The subject is covered, and thoroughly. A new kind of medical literature has come into existence, a literature fraught with the possibilities of great benefit to the practicing physician.

International Clinics. Edited by Henry W. Cattell, A.M., M.D., Philadelphia. Volume III. Twenty-fifth Series. Philadelphia and London: J. B. Lippincott Company. Cloth, \$2 net. 1915.

Volume III, twenty-fifth series, International Clinics contains a number of articles worthy of meritorious mention. Dr. Steinhardt is assuredly right when he states in "The Ideal Physician as the Citizen Builder": "This country, like every other country, needs citizens in the real sense and meaning of this word, and no one set of men, not even excepting the school and college instructors, has a greater opportunity to improve the standard than the medical profession." It is our privilege to come into contact with all ages of life, and we should make use of this golden opportunity to accomplish this very much to be desired result. We all agree with the sentiments expressed so well in this article, and agree that the physician at present is not doing his full duty toward creating a better idea of good citizenship. The author tells in his article how this can be accomplished by the profession by example, precept and instruction. From the remaining articles one should find a number of interest to him specially, as they cover a wide field.

The Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. February, 1916. Published Bi-monthly. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Paper, \$8 per annum. Volume V, Number 1.

Volume V, Number 1, of Murphy's Clinics is now in our hands, and, like its predecessors, contains, besides a little lean, much good red meat. In speaking of penetrating wounds of the knee-joint, Dr. Murphy advises removal of the foreign body immediately and painting the operative tract with tincture iodine, close the wound into the joint and inject a 2 per cent. formaline-glycerine solution for the purpose of cofferdaming the lymph spaces in the joint and producing an intense chemical reaction in response to the infection in the knee. The next day repeat the aspiration and again probally the second day if there were much fever. In the absence of fever do not reinject, but aspirate to diminish the tension of the products of infection in the knee-joint, on the same principle that you diminish the tension of a phlegmon in the thigh. Of as equally vital importance in the obtainal of a good joint is the application of Buck's extension, which must be applied on the very first day that you receive the case. While you may not be responsible for the development of ankylosis following joint infections, you are absolutely responsible for letting the knee become flexed to a right angle, and this flexion-contracture may be prevented by applying the extension the very first day. Furthermore, he emphatically states, no matter what the source of the infection of the synovia, whether the tonsils, the teeth, an abscess or a septic splinter, the first time you see the patient you must relieve the intra-articular pressure from the tension of the exudate



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by aspiration and from the tension of muscular contraction by applying Buck's extension. Should you withhold the extension until the sixth, eighth, tenth or twelfth after the onset of the synovitis, the muscular contractions will have become so great that the pain due to the increased amount of force now required to straighten the limb will be practically intolerable to the patient, while if you apply the extension on the first day, you may leave the opium and the hypodermic syringe at home. After the formaline injection, do not let the patient get up and about, as so many physicians do, erroneously believing they have followed the Murphy method, but put the patient to bed and apply extension.

It is just these plain, every-day heart-to-heart talks that permeate the whole issue of Murphy's Clinics, and which have so justly made them sought after. Murphy elucidates his practices in these bi-monthly issues so plainly that one might easily imagine that he is listening to the master from the benches of the amphi-

theatre.

Collected Papers from the Research Laboratory of Parke, Davis and Company. Dr. E. M. Houghton, Director. Reprints—Volume 3. 1915.

A great amount of research work of immense value to the profession is constantly under way at the laboratories of Parke, Davis and Company. This volume is a collection of the papers written by members of the staff on work which they have done in the laboratories of this firm. From a glance at the contents, one immediately becomes acquainted with the enormity and variety of subjects under investigation, namely, a sero-enzyme test for syphilis, infection and immunity, a review, disinfection, what disinfectant is the most generally applicable for clinical, surgical and sanitary purposes; the sterilization of adrenalin preparations, an expanding root canal filling, the pharmacy of adrenalin, etc. From the category above one is impressed with the amount of useful work being done by the research staff of Parke, Davis and Company.

A Textbook on the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D., Professor of Medicine and Clinical Medicine at the Medico-Chirurgical College; Physician to the Medico-Chirurgical Hospital; Consulting Physician to the Jewish Hospital and to the Widener Home for Crippled Children; Formerly Physician to the Philadelphia and to the Protestant Episcopal Hospitals, Philadelphia; Officier de l'Instruction Publique. Illustrated. Twelfth Edition. Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. Baltimore: The Medical Standard Book Co. Cloth, \$7 net.

What's the need of making special reference to Ander's Practice of Medicine. Every practitioner of medicine is fully aware that it is one of the standard textbooks in the English language. Neither time nor changed conditions will affect its popularity. As a matter of fact, each succeeding issue is more popular than its predecessor, so with age it meets a larger and larger measure of popularity. But as medicine is ever changing, it is necessary from



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time to time and from the exhaustion of editions to bring out new editions. Since the appearance of the last edition there have been added a number of rather important discoveries to the field of the internist, and it is the incorporation of these and the deleting of those which have proven useless that the present edition deals. The new matter embraces sections on colon bacillus infections; large cell spleenomegaly; tuberculosis of the thyroid gland; vagotomy and hypophyseal obesity. Those subjects partially rewritten are diabetes mellitus, hydrothorax; gastro-enteroptosis; acute anterior poliomyelitis; role of the cockroach in the spread of cholera, etc. Thus it can be seen that the changes ought to insure and will insure the continued usefulness of a book which for a score of years has been usefully serving the profession.

Handbook of Physiology. By W. D. Halliburton, M.D., LL.D., F.R.C.P., F.R.S., Professor of Physiology, King's College, London. Twelfth edition (being the twenty-fifth edition of Kirk's Physiology). With nearly six hundred illustrations in the text, many of which are colored, and three colored plates. Philadelphia: P. Blackiston's Son & Co. 1915. Cloth, \$3 net.

Once more this book has been thoroughly revised. Heretofore enjoying an exceptional popularity as a student's textbook on physiology, from all indications the present edition will be no less favorably received. There are some men who know by intuition, as it were, how to intelligently present a subject to a beginner. Halliburton is one of them. What he has to say he says in such direct, forceful, simple diction that the veriest tyro has no difficulty in comprehending the matter under discussion. Both surgeons and physicians are in accord with the statement that "In order to understand morbid or pathological processes, it is necessary that the normal or physiological functions should be learned first. Physiology is not a study which can be put aside and forgotten when a certain examination has been passed; it has a most direct and intimate bearing in its application to the scientific and successful investigation of disease." Physiological pathology has come to occupy such an important place in the eves of the profession that the student is indeed blessed when he has the relationship between pathology and physiology, as in Halliburton's book constantly pointed out. We know of no book which better places before the student's eyes the vital processes of the body. Starting with the cell, especially the animal, Halliburton passes on to the physiology of epithelium, consective tissue, muscular tissue, nerve, the circulatory system, the lynphatic, ductless glands, respiration, the blood, food, the alimentary canal, the secretions and excretions and the special organs. Whilst the book is elementary, it is as it should be. What the student needs and wants is not a learned discussion of the mooted points of physiology, of which there are myriads, but a plain, every-day exposition of the underlying, proven facts of physiology, and those devoid of statistics; in other words, a straightforward, dogmatic statement of what is the most accepted theories of the processes of life. Halliburton, with a rarity of judgment and consummate skill, meets this requirement.



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TO

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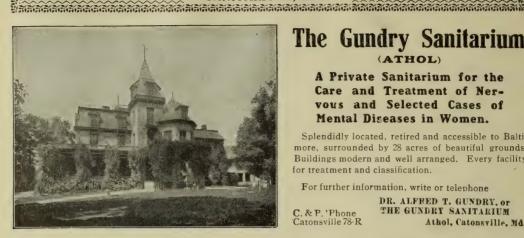
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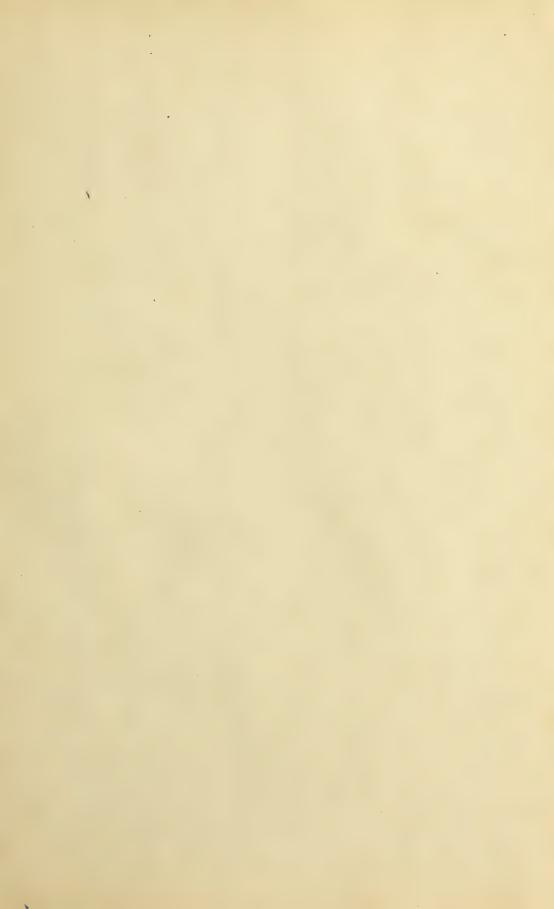
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